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IN JUNE OF THIS YEAR
there will be opened in Chicago an exposition dedicated to the progress of the present century. ● In what field is this progress better exemplified than in the oil industry? ● From a product originally used as an illuminant and a "Cure-all" medicine, petroleum has in thirty-five years made remarkable progress, providing heat for homes, lubrication for countless wheels of industrial machinery, and power for 26,000,000 automobiles and airplanes in America alone. ● The oil industry has met the demands of progress by constantly improving its methods all along the line. Science has taken the place of chance. ● That Halliburton has been privileged to contribute to the progress of the oil industry and, therefore, to the progress of the century, is genuine incentive to continue its research and maintain in all active oil fields a single high standard of service .... a worthwhile assignment, honestly executed.
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With East Texas Shut In Crude Oil Production in U. S. Falls to Lowest Figure in 10 Years

By JAMES McINTYRE

THE influence of the East Texas Field on the crude oil production of the United States is shown in the production figures for the past week.

With East Texas shut-in and its production a blank, the total crude oil output of the United States for the week ending Saturday, December 31 was 1,712,765 bbls. per day. This is the lowest average daily production in about 10 years.

In 1922 the average daily production of the United States was 1,500,000 bbls. per day even after the discovery of such big fields as Santa Fe Springs (1920), Smackover (1922), Burbank (1920), Huntington Beach (1920), Tonkawa (1922), Mexia (1921), Torrance (1922) and Goose Creek (1920). The fields named and new ones, including Powell, all reaching or approaching a peak, sent the average production for 1923 up to about 2,007,000 bbls. per day and it reached as high a point as 2,750,000 bbls. per day for the year 1929, the peak year.

However, the East Texas Field is now open to production and the Texas Railroad Commission has allotted it 290,000 bbls. per day of the total allowable for the State. There are reports of dissatisfaction among Texas producers and propaganda is under way to the effect that it will be difficult to maintain curtailment of oil production in that state for one reason or another. Added to all this is the ease with which recalcitrant operators obtain injunctions obstructing the Railroad Commission from carrying out proration orders.

The oil industry has been told many times that it was "approaching a crisis", or that it had "arrived at a crisis", in its affairs, but there never was a time when the situation was any more serious than it is now, nor any time when men more needed coolheadedness or farsightedness.

Price cutting in the crude market among minor crude oil purchasers in Kansas and Oklahoma began with the opening of the new year and the larger purchasers may assume the attitude that they must revise their schedules to meet these prices. The curtailment situation is still steady in Kansas and Oklahoma but not so good in California, while in Texas it is disquieting, to say the least.

The meeting of the Texas Public Service Commission on January 12 may result in a better feeling in that state. According to reports from Texas much depends upon that session of the Commission and the attitude of the men who take part in it. It appears at this time that it may be an epochal meeting.

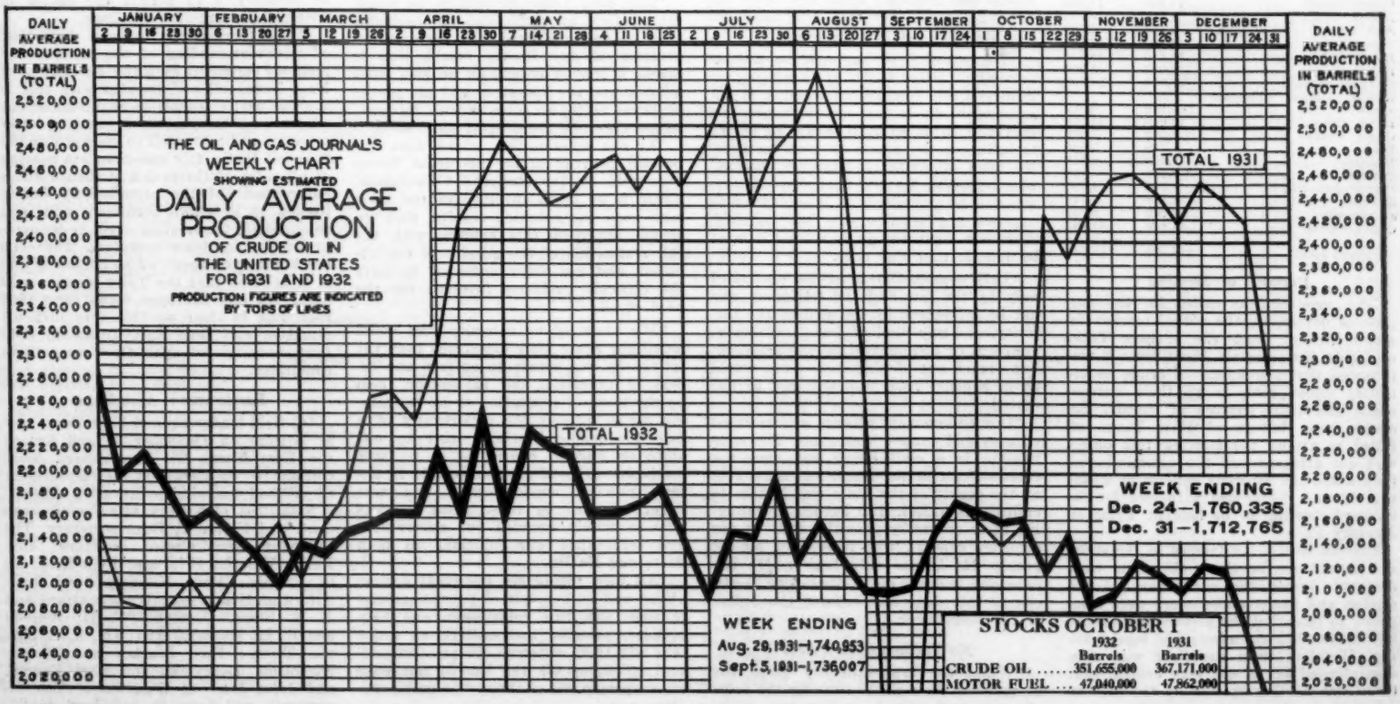
Crude Oil Production in the United States

Estimated daily average production for the week ending December 31 and a comparison with previous week and one year ago, follows:

	Dec. 31	Dec. 24	Jan. 2,1932
Oklahoma—			
Oklahoma City	61,550	93,165	137,185
Seminole-St. Louis	99,995	108,320	140,060
Remainder of State	195,350	196,170	215,590
Total Oklahoma	356,895	397,655	492,835
East Texas—			
Lathrop	(*)	(*)	101,070
Kilgore	(*)	(*)	92,087
Joiner	(*)	(*)	97,728
Total East Texas	(*)	(*)	290,885
West Texas	162,055	162,755	173,511
North Central Texas	72,035	72,163	74,095
Texas Panhandle	47,754	47,798	49,366
East Central Texas	51,010	51,035	50,942
Gulf Coast—Texas	130,015	128,876	108,625
Southwest Texas	55,823	55,960	57,194
Total State of Texas	518,692	518,587	804,618
Kansas	89,840	92,845	102,940
North Louisiana	29,225	28,195	27,790
Gulf Coast—Louisiana	33,165	34,152	29,850
Arkansas	32,800	33,215	33,720
Eastern Fields	116,000	115,000	123,000
Rocky Mountain area	65,148	67,686	89,358
California—			
Santa Fe Springs	55,000	56,500	64,000
Long Beach	70,500	70,500	76,000
Playa Del Rey	13,000	13,250	21,000
Elwood	13,500	13,000	15,000
Kettleman Hills	59,500	58,500	58,500
Remainder of State	259,500	261,250	262,500
Total California	471,000	473,000	497,000
Total United States	1,712,765	1,760,335	2,201,111

*Fields shut in.

Decrease 47,570 bbls. daily.



New Allowable Orders for Texas Fields Issued After Operators Express Ideas at Austin

AUSTIN, Tex., Jan. 2.—After a four-day hearing before the Texas Railroad Commission here the special session of that body called to consider the issuance of new orders under the recently enacted Texas law for conservation of oil and gas, the commissioners decided to recess and meet again at Tyler, Tex., on January 12. This action was taken because of the failure of many witnesses to appear before the Austin meeting. These witnesses have been subpoenaed to appear before the January 12 meeting and give testimony as to their nominations for oil from the East Texas oil field.

Immediately following the close of the Austin meeting the commission issued new allowables for the various fields of Texas to be effective January 1 to April 1 inclusive. The order for the East Texas Field is as follows:

"Effective at 7 o'clock a.m. January 1, 1933, and continuing until otherwise ordered, all producing oil wells in the East Texas oil field, comprising the productive areas in Upshur, Gregg, Rusk, Smith and Cherokee Counties, Texas, be and the same are hereby limited to such ratio flow as will result in the production of not to exceed 28 bbls. per well per day, provided that this regulation shall not apply to 'marginal wells' as defined by Article 6,049b, Vernon's Annotated Revised Civil Statutes of Texas."

Allowable by Fields

The allowable for all fields is listed below:

ALLOWABLES

	Barrels	
	Jan. 1	Dec. 16
East Texas	290,000	310,000
Raccoon Bend	5,500	5,500
Sugarland	7,500	8,000
Barbers Hill	17,800	19,100
High Island	6,500	6,500
Conroe	18,500	20,000
Panhandle	43,500	43,500
North Texas	50,000	50,000
West Central Texas	27,500	27,500
Yates	60,450	65,000
Winkler	25,000	25,000
Crane-Upton	12,000	13,000
Duval	6,755	6,755
Salt Flats	6,500	6,500
Van	41,500	42,500
Howard-Glasscock	14,000	14,000
Ector	4,000	4,000
Reagan County	20,000	20,000
Rabbs Ridge (Thompson)	9,000	10,000
Darst Creek	14,000	14,000
Goose Creek	3,200	3,200
Hull	5,500	5,500
Humble	5,125	5,125
Pettus	3,800	3,800
Pierce Junction	4,700	4,700
Refugio	7,700	7,700
Spindletop	2,700	2,700
Other fields	44,420	47,165
Texas total	757,150	789,745

Purpose of Meeting

This meeting was called for the purpose of developing the actual market demand for oil from the various Texas oil fields. To ascertain these facts it was intended that purchasers of crude should testify under oath as to their current needs and their sources of supply. Because many buyers of East Texas oil failed to attend the meeting this object was not attained and the commissioners then asked the attorney general of Texas to subpoena the needed witnesses for the recessed meeting to be held at Tyler on January 12.

Clashes between witnesses in the stand and spectators in the auditorium were frequent during the early part of the session and the commissioners were compelled to rule that the proceedings should be conducted in an orderly and legal manner. Heckling from the floor was then discontinued but it was very evident that there was much suspicion on the part of many as to the motives actuating many purchasers of East Texas oil, but because of the shortness of the session and the many details to be considered they did not have time to place before the commissioners sworn testimony as to their opinions.

In order that all facts may be brought to light it is planned to hold the second session in Tyler and endeavor to have everyone present who has any interest in buying oil and testify under oath. It was suggested that the attorney general determine means as to contempt proceedings that can be instituted should the subpoenaed witnesses refuse to appear and testify.

It is quite generally agreed that this next meeting will provide a major test as to the powers of the Texas Railroad Commission to enforce the new law regulating production of oil and gas and it is therefore anticipated that public sentiment, which is in favor of restricting production in East Texas, will play an important part in the Tyler meeting.

Engineers Busy

While the meeting was in progress in Austin the commission's engineers were active in the East Texas Field securing bottom hole pressure data. It is reported that this information was secured for the key wells, but unfortunately about 150 readings were destroyed when a field engineer's car ran off a bridge and into a creek. How these lost records will be replaced is a problem, because it was necessary to shut in the entire field to obtain them and the field is now again upon production.

It was partly because of this incident, and also because sufficient time had not elapsed to permit the engineers to translate and prepare the results of their field work into recommendations to the commission that it was necessary to issue the short order quoted above applying to the East Texas Field. This should not be taken as indicating that the order of December 10 basing well allowable for East Texas upon bottom hole pressure and acreage will be discarded. There is considerable objection to the acreage phase of the order but the commission has used a similar formula in its new order applying to gas conservation in the West Panhandle gas fields and it is therefore probable that they will attempt to enforce the new rules in East Texas as soon as they have all data available upon which to base an order.

Many predict that if the commission cannot enforce its orders in East Texas it will mean the breaking down of its authority and this may be followed by action by operators and interested parties in that field to restrict rate of production by taking the law into their own hands. The majority of interested parties in East Texas has indicated quite clearly that it is in favor of orderly production and it was this sentiment that was largely responsible for the complete shut down of the field for 14 days prior to January 1 to permit the taking of bottom hole pressure readings.

While there seems to be a great deal of misunderstanding of the motives and methods employed by many purchasers of East Texas oil and coupled with this is a great deal of suspicion that regulations are more for the purpose of creating lower prices than limiting oil to market demand it is felt that a fair and complete hearing of all sides of the case and then a strict enforcement of the commission's orders backed up by public sentiment will tend to eliminate the stealing of oil or its overproduction by some operators. The evils are known and they can be corrected and it is believed that the Tyler meeting will bring out into the open many facts that will tend to clear up this very difficult situation and save East Texas oil field from unrestricted open flow competitive conditions.

Landowners Association

Oil field landowners of East Texas met at Kilgore on December 31 and formed the East Texas Oil Landowners Association, to "co-operate in the enforcement of railroad commission proration orders."

Sam Ross, of Kilgore, was elected president, and Foster T. Bean secretary. The following were elected directors: Roy Laird, Malcolm Crim and John King, all of Kilgore; Rade Kangerga and John Alford of Henderson; Walter Alford and J. M. Shaw, Overton; W. H. Worrell and R. H. Harmon, Arp; Dr. A. S. Jarvis, Troup; Fred Stuckey and Walter Nicholson, Longview, and Carl Everett and John Jeter of Gladewater. The directorate will later be increased to 25.

Commission Opens Case by Statement Criticizing Tactics of Obstruction

AUSTIN, Tex., Jan. 2.—In the proration hearing an innovation was a statement read at the opening of the hearing, signed by all three members of the commission, in which they decried the numerous injunctions against their orders and condemned them in vitriolic language, also refusing to consider price fixing at this hearing, barring all side-door arguments in these matters and demanding that all statements be made in the open and finally declaring this to be one of the most important hearings ever undertaken in the State. It has been a common practise for several oil men to buttonhole commission members either in hotel lobbies or in their offices after the hearings are closed and make arguments not heard by the opposition. The commission demands that this be stopped.

No Outside Influence Tolerated

"This hearing is a judicial proceeding and will be conducted as such. All parties interested, if desired, will be heard by sworn testimony and after the testimony is all in, oral argument may be presented. All the testimony and arguments will be heard during the hearing and not afterward. We cannot prevent letters and messages being sent after the hearing is over, but they will come too late and will not be considered.

"We regard it as improper for anyone to attempt either orally or in writing, to influence this commission when it is not in session. It is just as improper and unethical to do so as it would be to try to influence the courts by such methods. No form of abuse or improper insinuation reflecting on the character of anyone will be permitted. If it is desired to impeach any witness who has testified, there is a legal way to do so and it must be done in that way only.

"This commission must be controlled only by the law and the testimony and not be influenced by the will of the majority, and any kind of demonstration or approval or disapproval by those present is as much out of place here as it would be in a court room and will not be tolerated.

"Our enforcement officers are unarmed citizens and cannot bear arms. The commission is a civil board and does not command an armed force, and must rely on the courts of the State and Nation to enforce its orders. The burden of enforcing these orders by penalties falls on our attorney general, who is selected by the people. He is our only lawyer. He has done and is doing all in his power to discharge this duty and enforce the orders of the commission.

No Testimony on Prices

"While the law expressly gives the commission the right to consider the price of crude and refined products, we doubt the power of the legislature to do so and we therefore have decided not to permit any testimony bearing on the question of price.

"Our proration orders in the past have saved to the oil operators and royalty owners of Texas more than $2,000,000,000, and the oil industry is the only industry that during the past mad rush for normalcy and prosperity has weathered the storm of depressed conditions and that has tended to lead us aright. It is the only industry that has placed Texas far in advance of any state in the union in surmounting the gravest situation in all history. And for any cause now to lose control of the situation and not continue to conserve the industry thereby wreck thousands of operators and landowners and lose to the nation perhaps one-half of this natural resource would be most unfortunate and a severe blight on the fair name of our State, to say nothing of the enormous tax to the State that would be destroyed and the harsh blow to our public school system and not to meniton the great loss to the University of Texas and the A. & M. College.

"Greatest Field on Earth"

"The East Texas oil field is the greatest oil field on earth and the problems here to be considered are perhaps the greatest of any in the world, and it places a solemn obligation on this commission and the operators and the people of Texas to try to solve it with fairness, temperance and the deepest patriotism.

"In our opinion this is the most important hearing to the people of Texas ever held by the Railroad Commission. There is so much involved in the issue with such far reaching results, that we should approach this hearing with the full realization of the gravity of the situation and use every endeavor to solve the difficult problems involved for the good of all.

"We know of no calamity that could befall our State more disastrous than the failure by our courts to enforce our orders of proration and to destroy them by the route of injunction or by restraining writs without the opportunity of a fair and public hearing, either by our state or Federal courts, is in no way conducive to good government. It is unfair, unwise, nondemocratic and was never intended by those great patriots who so wisely founded our government and established our judiciary in both State and Nation.

"All men should see the great danger ahead and in a spirit of patriotism and fairness join this commission and help prepare, promote and enforce an order that will truly conserve our greatest natural resources for the benefit not only of our people but of those who may come after us."

Nominations of Texas Crude Oil Purchasers for Months of January, February and March

AUSTIN, Tex., Dec. 31.—Nominations of crude oil purchasers in Texas for their own use and for resale for the first three months of 1933, as reported to the oil and gas division of the Texas Railroad Commission up to Wednesday, December 28, are given in the accompanying table.

Later nominations were made by other companies, including those of the Atlas Pipe Line Co., Taylor Refining Co. and others.

Considerable of a squabble ensued before the commission when the East Texas nominations were produced and Leslie McKay, chief deputy oil and gas supervisor, presented his revisions and the reasons made.

A nomination of 30,000 bbls. daily by the Atlas Pipe Line Co. to purchase was not allowed because the source from which it proposed to obtain the oil was not disclosed.

The nomination of the Crown Central Oil Co. was cut from 8,000 bbls. daily to 3,800, the revised figure being based "on oil available from the Southern Oil & Refining Co. and deducting shallow oil not under proration."

The nomination of the Atlantic Pipe Line Co. was cut 500 bbls. because the nomination was reported as being "flexible."

The Petroleum Refractionating Co. nominated to purchase 10,000 bbls. daily but its nomination was reduced to 250 bbls., a notation beside the reduced nomination stating it was "indefinite and gave them only their actual well connections at the present time.

The Yount Lee Oil Co. nomination was cut from 7,300 bbls. to 5,250 bbls., McKay reporting they were running only their own oil and that he had revised their nominations to allow for 30 bbls. from each well to which the company actually was connected.

The nomination of the Gulf company was reduced approximately 5,000 bbls. because of duplication with the nominations of another company.

The Taylor Refining Co. nomination of 15,000 bbls. was reduced to an allowed nomination of 1,200, the notation beside the reduction stating the nomination was "indefinite and flexible." The nomination allowed represented 30 bbls. per well to the 40 wells to which the company was connected.

Elimination of duplications reduced the Magnolia Petroleum Co. nomination from 30,000 to 27,000 bbls.

Objection to consideration of the Atlas Pipe Line Co. nomination was made by Charles S. Roeser, president of the Texas Oil and Gas Conservation Association, because it allegedly was conditional and based on the right of the company to "bargain" for the oil. Roeser stated this nomination was to purchase what he termed "distress" oil.

McKay recommended to the commission that it try out the market demand law and gave the 290,000-bbl. recommendation as being the market demand, so far as he could determine it, for East Texas. He stated that personally he would like to see East Texas produce 500,000 bbls. daily, stating that the reduction in the allowable from 325,000 to 310,000 bbls. apparently had little effect on the attempts to obtain pipe line connections for the 300 unconnected wells.

"If the wells are not connected under the 290,000-bbl. allowable, then I don't know what the commission should do," McKay stated, adding that it would take only a few days for the commission to determine if the unconnected wells were to be allowed to share in the market by being given connections under the reduced allowable.

McKay said he would not recommend the 290,000-bbl. allowable unless he thought this would make the supply of oil so low that it would be necessary to connect the distressed wells, although he admitted that the previous reduction had produced little result.

Nominations made up to December 28 were as follows:

Nominations of Oil Purchasers for Own Use and for Resale, as Reported to the Oil and Gas Division of the Railroad Commission

Company, and district or field—	Jan., '33	Feb., '33	Mar., '33
For Own Use			
The Texas Company, North Texas	17,500	17,500	17,500
The Texas Company, Panhandle	8,500	8,500	8,500
The Texas Company, Van	2,500	2,500	2,500
The Texas Company, East Texas	10,500	10,500	10,500
The Texas Company, Darst Creek	4,000	4,000	4,000
The Texas Company, West Texas	3,500	3,500	3,500
The Texas Company, Gulf Coast (light)	2,000	2,000	2,000
The Texas Company, Gulf Coast (heavy)	9,500	9,500	9,500
The Texas Company, West Texas (Big Lake)	3,000	3,000	3,000
The Texas Company, Conroe	2,500	3,000	3,500
Total The Texas Company	63,500	64,000	64,500
For Resale			
The Texas Company, East Texas	4,000	4,000	4,000
For Own Use			
Inland Waterway Pipe Line Co., East Texas	2,000	2,000	2,000
Stewardson & Son, West Central Texas	3	3	3
LaSalle Petroleum Co., North Texas	267	267	267
Wickett Pipe Line Co., West Texas	2,000	2,000	2,000
Simms Oil Co., East Texas	2,000	2,000	2,000
American Petroleum Co., Gulf Coast	1,800	1,800	1,800
Stafford, W. L., West Central Texas	67	67	67
Sun Pipe Line Co., Gulf Coast "A"	6,500	6,500	6,500
Sun Pipe Line Co., Gulf Coast "B"	10,750	10,750	10,750
Sun Pipe Line Co., East Texas	22,250	22,250	22,250
Total Sun Pipe Line	39,500	39,500	39,500
For Resale			
Sun Pipe Line Co., East Texas	4,667	4,667	4,667
For Own Use			
Texas Pacific Coal & Oil Co., West Central (Ranger)	2,500	2,500	2,500
Valley Refining Co., Southwest Texas	200	200	200
Crown Central Petroleum Co., East Texas	8,000	8,000	8,000
Crown Central Petroleum Co., Southwest Texas	3,500	3,500	3,500
Crown Central Petroleum Co., Gulf Coast (Goose Creek)	400	400	400
Crown Central Petroleum Co., Gulf Coast (Mykawa)	600	600	600
Total Crown Central	12,500	12,500	12,500
Superior Refining Co., West Central	125	125	125
Olney Oil & Refining Co., North Texas	2,273	2,800	3,307
Cosden Oil Co., Howard-Glasscock	6,500	6,500	6,500
Gratex Refining & Fuel Oil Co., North Texas	109	109	109
Panhandle Refining Co., North Texas	2,500	2,800	3,000
J. D. Meredith, West Central	2	2	2
Shamrock Oil & Gas Co., Panhandle	1,500	1,500	1,500
Southland Refining Co., North Texas	300	300	400
Empire Companies	2,500	2,500	2,500
Continental Oil Co., North Texas	3,600	4,000	2,177
For Resale			
Continental Oil Co., Panhandle	2,500	2,500	2,500
For Own Use			
Tidal Refining Co., East Texas	18,000	19,000	19,000
Tidal Refining Co., Conroe	10,000	12,000	12,000
Total Tidal	28,000	31,000	31,000
For Resale			
South Texas Oil Co., Southwest Texas	1,500	1,500	1,500
Pasotex Pipe Line Co., West Texas	2,725	2,725	2,725
Reagan County Purchasing Co., Big Lake	20,000	20,000	20,000
Stanolind Crude Oil Purchasing Co., East Texas	9,000	9,000	9,000
Stanolind Crude Oil Purchasing Co., Mexia	1,000	1,000	1,000
Stanolind Crude Oil Purchasing Co., North Texas	10,410	10,410	10,410
Total Stanolind	20,410	20,410	20,410
For Resale			
Atlantic Oil Producing Co., West Central	500	500	500
Atlantic Oil Producing Co., Ward and Winkler	5,100	5,100	5,100
Atlantic Oil Producing Co., Bee County	3,000	3,000	3,000
Atlantic Oil Producing Co., Refugio	6,600	6,600	6,600
Atlantic Oil Producing Co., Barbers Hill	15,000	15,000	15,000
Atlantic Oil Producing Co., East Texas	27,000	27,000	27,000
Total Atlantic	57,200	57,200	57,200
Empire Companies, East Texas	13,500	13,500	13,500
For Own Use			
Grayburg Oil Co., Southwest Texas	620	560	620

Company, and district or field—	Jan., '33	Feb., '33	Mar., '33
For Resale			
Texon Oil & Land Co., Winkler	1,000	1,000	1,000
Sinclair Prairie Oil Marketing Co., Gulf Coast	7,000	7,000	7,000
Sinclair Prairie Oil Marketing Co., East Texas	24,650	24,650	24,650
Sinclair Prairie Oil Marketing Co., Panhandle	1,800	1,800	1,800
Sinclair Prairie Oil Marketing Co., North and Central	3,200	3,200	3,200
Total Sinclair Prairie	36,650	36,650	36,650
For Own Use			
Petroleum Refining Co., East Texas	10,000	10,000	10,000
Petroleum Refining Co., Panhandle	6,500	6,500	6,500
Total Petroleum Refining	16,500	16,500	16,500
Pure Oil Co., North Texas	1,000	1,000	1,000
Pure Oil Co., Gulf Coast	650	650	650
Pure Oil Co., Southwest Texas	2,250	2,250	2,250
Pure Oil Co., East Texas	4,750	4,750	4,750
Pure Oil Co., Van	30,850	30,850	30,850
Total Pure Oil Co.	39,500	39,500	39,500
For Resale			
Pure Oil Co., North Texas	1,349	1,349	1,349
Pure Oil Co., Gulf Coast	332	332	332
Pure Oil Co., Van	15,000	15,000	15,000
Pure Oil Co., West Texas	163	163	163
Pure Oil Co., Panhandle	232	232	232
Total Pure Oil Co.	17,076	17,076	17,076
Bell Oil & Gas Co., Panhandle	900	900	900
Stanolind Oil & Gas Co., West Texas	9,200	9,200	9,200
For Own Use			
Mid-Kansas Oil & Gas Co., Yates	1,500	1,500	1,500
Mid-Kansas Oil & Gas Co., East Texas	2,000	2,000	2,000
Mid-Kansas Oil & Gas Co., Reagan County	2,000	2,000	2,000
Total Mid-Kansas	5,500	5,500	5,500
Phillex Oil Co., Panhandle	14,000	11,900	11,900
Shell Petroleum Corp., West Texas	1,900	1,900	1,900
Shell Petroleum Corp., Yates	14,200	14,200	14,200
Shell Petroleum Corp., Crane-Upton	1,725	1,725	1,725
Shell Petroleum Corp., Howard-Glasscock	2,400	2,400	2,400
Shell Petroleum Corp., Winkler	5,000	5,000	5,000
Shell Petroleum Corp., Salt Flat	1,200	1,200	1,200
Shell Petroleum Corp., East Texas	20,000	20,000	20,000
Total Shell	46,425	46,425	46,425
Humble Oil & Refining Co., Panhandle	3,000	3,000	3,000
Humble Oil & Refining Co., East Texas	37,500	37,500	37,500
Humble Oil & Refining Co., Van	5,000	5,000	5,000
Humble Oil & Refining Co., North Texas	3,000	3,000	3,000
Humble Oil & Refining Co., West Central	8,000	8,000	8,000
Humble Oil & Refining Co., Pecos	18,200	18,200	18,200
Humble Oil & Refining Co., Winkler	6,100	6,100	6,100
Humble Oil & Refining Co., Ector	2,600	2,600	2,600
Humble Oil & Refining Co., Howard-Glasscock	3,100	3,100	3,100
Humble Oil & Refining Co., Crockett	1,200	1,200	1,200
Humble Oil & Refining Co., Crane-Upton	3,400	3,400	3,400
Humble Oil & Refning Co., Sugarland	9,000	9,000	9,000
For Resale			
Gulf Production Co., Gulf Coast	17,340	17,340	17,340
Gulf Production Co., Southwest Texas	1,029	1,015	1,001
Gulf Production Co., Darst Creek	2,153	2,153	2,153
Gulf Production Co., East Central Texas	120	120	120
Gulf Production Co., East Texas	20,492	21,017	21,542
Gulf Production Co., West Texas	25,302	25,302	25,302
Gulf Production Co., Panhandle	3,241	3,241	3,241
Gulf Production Co., North Texas	1,169	1,169	1,169
Total Gulf Production	70,836	71,347	71,968
Gulf Pipe Line Co., Gulf Coast	4,582	4,582	4,582
Gulf Pipe Line Co., Southwest Texas	116	115	114
Gulf Pipe Line Co., Darst Creek	1,008	1,008	1,008
Gulf Pipe Line Co., East Texas	15,480	15,555	15,630
Gulf Pipe Line Co., West Texas	1,948	1,948	1,948
Gulf Pipe Line Co., Panhandle	854	954	954
Gulf Pipe Line Co., North Texas	1,780	1,780	1,780
Total Gulf Pipe Line	25,868	25,942	26,016

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For Resale Company, and district or field—	Jan., '33	Feb., '33	Mar., '33
Humble Oil & Refining Co., Raccoon Bend	6,000	6,000	6,000
Humble Oil & Refining Co., Rabbs Ridge	7,750	7,750	7,750
Humble Oil & Refining Co., Pierce Junction	3,000	3,000	3,000
Humble Oil & Refining Co., Hull	2,500	2,500	2,500
Humble Oil & Refining Co., Liberty	300	300	300
Humble Oil & Refining Co., Moss Bluff	100	100	100
Humble Oil & Refining Co., Lost Lake	300	300	300
Humble Oil & Refining Co., Sour Lake	150	150	150
Humble Oil & Refining Co., Spindletop	100	100	100
Humble Oil & Refining Co., Goose Creek	1,600	1,600	1,600
Humble Oil & Refining Co., Damon Mound	500	500	500
Humble Oil & Refining Co., Orange	600	600	600
Humble Oil & Refining Co., Humble	1,300	1,300	1,300
Humble Oil & Refining Co., Refugio	300	300	300
Humble Oil & Refining Co., Pettus	800	800	800
Humble Oil & Refining Co., Conroe	15,000	15,000	15,000
Humble Oil & Refining Co., East Central	2,400	2,400	2,400
Humble Oil & Refining Co., Mirando	4,800	4,800	4,800
Humble Oil & Refining Co., Salt Flat and Darst Creek	8,500	8,500	8,500
Total Humble	156,100	156,100	156,100
Arkansas Pipe Line Co., East Texas	8,200	8,200	8,200
Waggoner Pipe Line Co., West Texas	3,300	3,300	3,300
Yount Lee Pipe Line Co., High Island	6,500	7,500	8,500
Yount Lee Pipe Line Co., Spindletop	3,000	3,000	3,000
Yount Lee Pipe Line Co., East Texas	7,300	7,300	7,300
Total Yount Lee	16,800	17,800	18,800
Harrison Star Refining & Producing Co., East Texas	834	834	834
For Own Use			
Magnolia Petroleum Co., North Texas	7,700	7,700	7,700
Magnolia Petroleum Co., East Texas	30,000	30,000	30,000
Magnolia Petroleum Co., Southwest Texas	8,500	8,500	8,500
Magnolia Petroleum Co., West Texas	2,300	2,300	2,300
Magnolia Petroleum Co., Lytton Springs	800	800	800
Magnolia Petroleum Co., Central Texas	200	200	200
Magnolia Petroleum Co., Gulf Coast	8,300	8,300	8,300
Magnolia Petroleum Co., Panhandle	2,600	2,600	2,600
Total Magnolia	60,400	60,400	60,400
Arrow Refining Co., East Texas	2,000	2,000	2,000

Recapitulation by Districts

	For own use			For resale		
NORTH TEXAS	Jan.,'33	Feb.,'33	Mar.,'33	Jan.,'33	Feb.,'33	Mar.,'33
The Texas Company	17,500	17,500	17,500	.....	.....	.....
LaSalle Petroleum Co.	267	267	267	.....	.....	.....
Olney Oil & Refining Co.	2,273	2,800	3,307	.....	.....	.....
Graytex Refining & Fuel Oil Co.	109	109	109	.....	.....	.....
Panhandle Refining Co.	2,500	2,800	3,000	.....	.....	.....
Southland Refining Co.	300	300	400	.....	.....	.....
Stanolind Crude Oil Pur. Co.	.....	.....	.....	10,410	10,410	10,410
Sinclair Prairie Oil Mktng. Co.	.....	.....	.....	3,200	3,200	3,200
Pure Oil Co.	1,000	1,000	1,000	1,349	1,349	1,349
Humble Oil & Refining Co.	3,000	3,000	3,000	.....	.....	.....
Gulf Production Co.	.....	.....	.....	1,169	1,169	1,169
Gulf Pipe Line Co.	.....	.....	.....	1,780	1,780	1,780
Waggoner Pipe Line Co.	3,300	3,300	3,300	.....	.....	.....
Magnolia Petroleum Co.	7,700	7,700	7,700	.....	.....	.....
Continental Oil Co.	3,600	4,000	2,177	.....	.....	.....
Total for own use				41,549	42,776	41,760
Total for resale				17,908	17,908	17,908
Total North Texas				59,457	60,684	59,668
WEST TEXAS						
The Texas Company	6,500	6,500	6,500	.....	.....	.....
Wickett Pipe Line Co.	2,000	2,000	2,000	.....	.....	.....
Pacotex Pipe Line Co.	.....	.....	.....	2,725	2,725	2,725
Reagan County Purchasing Co.	.....	.....	.....	20,000	20,000	20,000
Atlantic Oil Producing Co.	.....	.....	.....	5,100	5,100	5,100
Texon Oil & Land Co.	.....	.....	.....	1,000	1,000	1,000
Pure Oil Co.	.....	.....	.....	163	163	163
Stanolind Oil & Gas Co.	.....	.....	.....	9,200	9,200	9,200
Mid-Kansas Oil & Gas Co.	1,500	1,500	1,500	.....	.....	.....
Humble Oil & Refining Co.	34,600	34,600	34,600	.....	.....	.....
Gulf Production Co.	.....	.....	.....	25,302	25,302	25,302
Gulf Pipe Line Co.	.....	.....	.....	1,948	1,948	1,948
Magnolia Petroleum Co.	2,300	2,300	2,300	.....	.....	.....
Cosden Oil Co.	6,500	6,500	6,500	.....	.....	.....
Shell Petroleum Corp.	25,225	25,225	25,225	.....	.....	.....
Total for own use				78,625	78,625	78,625
Total for resale				65,438	65,438	65,438
Total West Texas				144,063	144,063	144,063
WEST CENTRAL TEXAS						
W. L. Stafford	67	67	67	.....	.....	.....
Texas Pacific Coal & Oil Co.	2,500	2,500	2,500	.....	.....	.....
Superior Refining Co.	125	125	125	.....	.....	.....
J. D. Meredith	2	2	2	.....	.....	.....
Stewardson & Sons	3	3	3	.....	.....	.....
Atlantic Oil Producing Co.	.....	.....	.....	500	500	500
Mid-Kansas Oil & Gas Co.	2,000	2,000	2,000	.....	.....	.....
Humble Oil & Refining Co.	8,000	8,000	8,000	.....	.....	.....
Total for own use				12,797	12,697	12,697
Total for resale				500	500	500
Total West Central Texas				13,297	13,197	13,197
EAST TEXAS						
The Texas Company	10,500	10,500	10,500	4,000	4,000	4,000
Inland Waterways P. L. Co.	2,000	2,000	2,000	.....	.....	.....
Simms Oil Co.	2,000	2,000	2,000	.....	.....	.....
Sun Pipe Line Co.	22,500	22,500	22,500	4,667	4,667	4,667
Crown Central Petroleum Corp.	8,000	8,000	8,000	.....	.....	.....
Tidal Refining Co.	19,000	19,000	19,000	.....	.....	.....
Stanolind Crude Oil Pur. Co.	.....	.....	.....	9,000	9,000	9,000
Atlantic Oil Producing Co.	.....	.....	.....	27,000	27,000	27,000
Empire Companies	.....	.....	.....	13,500	13,500	13,500
Sinclair Prairie Oil Mktng. Co.	.....	.....	.....	24,650	24,650	24,650
Petroleum Refractionating Co.	10,000	10,000	10,000	.....	.....	.....
Pure Oil Co.	4,750	4,750	4,750	.....	.....	.....
Mid-Kansas Oil & Gas Co.	2,000	2,000	2,000	.....	.....	.....
Shell Petroleum Corp.	20,000	20,000	20,000	.....	.....	.....
Humble Oil & Refining Co.	37,500	37,500	37,500	.....	.....	.....
Arkansas Pipe Line Co.	8,200	8,200	8,200	.....	.....	.....
Yount Lee Pipe Line Co.	7,300	7,300	7,300	.....	.....	.....
Harrison Star Ref. & Prod. Co.	834	834	834	.....	.....	.....
Gulf Production Co.	.....	.....	.....	20,492	21,017	21,542
Gulf Pipe Line Co.	.....	.....	.....	15,480	15,555	15,630
Magnolia Petroleum Co.	30,000	30,000	30,000	.....	.....	.....
Arrow Refining Co.	2,000	2,000	2,000	.....	.....	.....
Total for own use				195,334	196,334	196,334
Total for resale				113,789	119,389	119,989
Total for East Texas				304,123	305,723	306,323

CENTRAL TEXAS						
Stanolind Crude Oil Pur. Co.	.....	.....	.....	1,000	1,000	1,000
Pure Oil Co.	30,850	30,850	30,850	15,000	15,000	15,000
Humble Oil & Refining Co.	7,400	7,400	7,400	.....	.....	.....
Gulf Production Co.	.....	.....	.....	120	120	120
Magnolia Petroleum Co.	200	200	200	.....	.....	.....
The Texas Company	2,500	2,500	2,500	.....	.....	.....
Total for own use				40,950	40,950	40,950
Total for resale				16,120	16,120	16,120
Total Central Texas				57,070	57,070	57,070

Restrictions on Highways and Taxation Threaten Progress of Oil Industry

By I. W. VAN DYKE

Chairman of the board, Atlantic Refining Co.*

The oil industry is working its way out of the depression. Its internal affairs occupy an improved position. It is looking up. It has gained control over its own operations and now is better prepared than it has been for several years to take advantage of the opportunities of a general recovery of business.

On the other hand the progress of the oil industry is threatened by two forces beyond its control, namely, the current mania to tax its products and the aggressive legislative campaign to restrict the development of economical highway transportation.

Much harm has resulted from the indiscriminate and excessive taxation of gasoline. It has invited evasion, by which the bootlegger has preyed upon the law-abiding distributor. More serious, it has caused some farmers and others to abandon the use of gasoline. In a period of reduced incomes a tax on gasoline tends to restrict its use. The larger the tax the greater the restriction. This fact is illustrated by the experience of the several states during the first nine months of 1932. But the great harm from increasing levies upon gasoline is explained simply by the fact that gasoline constitutes one of the most useful of our economic tools. Anything which restricts its use tends to reduce the wealth-producing capacity of our people. The use of gasoline in suitable mechanisms has increased the life-time accomplishments of individuals by giving to them control over a portable and flexible source of power equal to many times their own power. Time has been saved; hardships reduced; production increased. The economic welfare of our people is advanced by the extension of the use of their power resources.

Attack on Trucks

The second difficulty confronting the industry from without is the prospective diminution of demand for its chief products by the restriction of the use of the highways. The legislative proposals and enactments are cause of concern to the entire community. They assume many different forms. These include a bill to equalize truck and rail rates; a bill to fix motor freight rates at 10 per cent above rail rates; a bill to limit the size and load of motor vehicles; a bill respecting multiple registrations, which in effect places restraints on interstate commerce. Here indeed is a matter affecting all the people. To hinder the growth of the comparatively young highway transport industry is to prolong the depression. The automobile and allied industries are capable of great development which, if permitted, would have a buoyant effect on business. They have demonstrated fully their ability to create useful employment. Highway transport, especially, during this depression has been the source of livelihood for hundreds of thousands of men. Contrast the employment possibilities of motor transport with the declining employment provided by the railroads.

In August of this year, according to the Interstate Commerce Commission, fewer persons were employed by the railroads than in 1889. On the other hand, the motor vehicle has come to fill the need for the creation of useful employment. For 1930, the Bureau of Census reported 972,000 persons gainfully employed as chauffers and truck and tractor drivers. This number is exclusive of persons engaged to build, maintain and service motor equipment. Nevertheless, the number of chauffers and drivers alone almost equalled the total number of all classes of railroad employes in August last. These automotive drivers have been usefully employed. They have rendered a needed service to the community. They have made it possible for people to do some things not hitherto possible and to do other things better. Anyone who has shipped household goods by rail with its attendant crating, drayage at each terminal, uncertain arrival, uncrating and repair, knows something of the possibilities of the new form of transportation. It is proposed to restrict development of motor transport by methods employed 100 years ago by canal and stage coach owners in their attempts to oppose the development of the railroads. The methods include the magnification of personal hazards of highway transportation, the placing of restrictions upon the size and the load of vehicles and by confiscatory taxation. Surely the economic history of the nation teaches that such proposals are economically unsound. Over a long period of prosperous years our increasing standard of living was made possible by increasing the per capita productivity. This fact is illustrated also by railroad experience.

In the 20 years from 1911 to 1931, the average tractive power of steam locomotives on our railroads was increased 60 per cent, from 28,000 pounds to 45,000 pounds. By increasing freight car capacities, trebling the weight of rails, and increasing the power of locomotives, the ton-miles of revenue freight hauled per employe were increased 140 per cent in the 35 years from 1895 to 1930. Despite this historic evidence of the basis of economic progress, our legislators everywhere are asked to impede the development of a new form of transportation by placing limitations upon the size and load of its units. They are also asked to restrain the development of this newer form of transportation by bringing it under regulations enacted to control monopolies and which were rendered necessary by abuses practiced by such monopolies, railroads included, in the past. Highway transportation can never become a monopoly except by direct legislative authority. It should never be allowed to become such.

Benefits to Public

These and similar benefits of motor transportation should not be denied the public by taxing and legislating trucks and busses out of existence, except for a valid reason. The reasons thus far advanced have been unequivocally refuted. Unfortunately for the clarity of the issues, the opponent of automotive transport has refrained from a frank expression of the real reason for its opposition. Can it be other than a desire to preserve its long-enjoyed monopoly? Is its income to be guaranteed at public expense and the price of economic progress? Is its service, unlike that of other industries, to go unchallenged by improvement proffered by others? The answers to these questions will affect greatly the welfare of the people.

*From letter to stockholders.

Temporary Injunctions Have Halted Enforcement of Market Demand Gas Conservation Order

AUSTIN, Tex., Jan. 2.—The natural gas proration orders issued by the Texas Railroad Commission on December 30 and effective January 1 covering gas production in the West Panhandle Texas gas fields has been temporarily enjoined in Federal court by writs secured by three Panhandle gas producing firms whose suit attacks the new market demand law under which the State is trying to regulate the entire oil and gas industry.

Federal Judge Duval West at San Antonio granted these temporary restraining writs against the new order issued by the Railroad Commission which limited the daily production of the Panhandle gas field to 300,000,000 feet. The writs were given to the Texoma Natural Gas Co., Cities Service Co. and Canadian River Gas Co. Hearing has been set for January 11 before Judge West to consider making the orders permanent.

In the opinion of attorneys for the plaintiffs the legislature was without power to attempt a market demand regulation for natural gas. They contend that the attack on the gas provisions would not affect the market demand law for oil production.

Panhandle operators reported on Monday that the Standard Oil Co. (New Jersey), the Empire company and the Prairie Oil & Gas Co., part owners of the Panhandle gas field, are fighting the injunction proceedings because of their desire for the enforcement of the new market demand law as to oil production.

R. D. Parker, chief oil and gas supervisor of the Railroad Commission, was notified Monday of the injunction, and the plea in the gas companies suit that the legislature was powerless to pass the market demand law as to gas. He declined to comment on whether injunctions covering gas production will open the way for a series of injunctions to halt oil proration in East Texas and other fields.

Commission's Order

The commission, in two orders regulating natural gas production in the Texas Panhandle Field, fixed a daily allowable production of 300,000,000 feet daily for January, 1933, and for oil wells provided for a gas-oil ratio of 25,000 feet per barrel of oil, with authority to produce more gas where an outlet is provided for its use in gas extraction plants.

This new order followed an injunction issued by a three-judge Federal court and was signed by Joseph C. Hutcheson, Jr., Circuit Court judge, and Duval West and Robert J. McMillan, District Court judges. It restrains the Texas Railroad Commission from enforcing its order of May 9, 1932, as that order closed a portion of the West Panhandle gas field until certain operators there could obtain a market outlet for their product.

The allowable production fixed by the order now issued was the amount of aggregate reasonable market demand of all pipe lines taking gas for use as light and fuel.

The order provides for ratable taking, with unit of production to be 160 acres, the basis to be computed, one-half on well production and one-half on a combination of acreage and well pressure factors.

The gas-oil ratio order provided that wells producing over 500,000 feet of gas per barrel of oil shall be classified as gas wells. It ordered all gas wells closed in until such time as the natural gas shall be utilized for purposes provided for by law. It required that each well be restricted to 25 per cent of potential open flow. It decreed that casinghead gas shall not be produced from any oil well except with the oil, and under the fixed ratio.

It provided that where a well has an outlet for its gas to natural gas extraction plants, the 25,000-foot ratio of gas may be exceeded; but that such wells shall not operate above 75 per cent of open flow capacity.

The orders provided that individual exceptions may be granted on application of operators and a show of reasonableness.

Excerpts from Orders

The orders are divided into two parts, the first stating that it is effective January 1, 1933, and subject to changes the first day of each succeeding month and fixing allowables, and the second part covers special field rules for the conservation of gas.

Beginning with the statement that the order applies only to the production of natural gas from wells producing gas only and to sweet gas or such as shall be made sweet, the order then defines the West Panhandle Field as Moore, Porter, Hartley, Oldham, Hutchinson, Carson Counties and a portion of Gray County.

The allowable production for this area shall be the aggregate reasonable market demands of all pipe lines taking gas therefrom for use as light or fuel without physical waste and produced ratably to meet market demand. For the period starting at 7 a. m. January 1 to 7 a. m. February 1, 1933, the market demand has been fixed at 300,000,000 feet of gas daily.

The allowable production from said field shall be fixed by calendar months and the average daily amount shall be estimated. Ten days prior to February 1, and 10 days prior to the first of each month thereafter, the deputy supervisor of the Railroad Commission in charge of the West Panhandle gas field, shall ascertain the aggregate reasonable market demand of all pipe lines taking gas and shall compile the allowable production for the next succeeding month.

A unit shall consist of 160 acres upon which a well has been completed, and a fractional unit shall consist of a tract less than 160 acres. The deputy supervisor shall ascertain the location of all such wells and shall divide the applicable producing area of each lease into units and fractional units which will as nearly as possible conform to a quarter section and multiples thereof. Whenever the division of a producing lease results in the creation of a fractional unit less than 40 acres, then such fractional unit shall be attached to the adjoining full unit on the lease and the allowable for such enlarged unit shall be increased to the extent which results from using the increased acreage of the unit in the following formula:

The allowable production of the field shall be allocated to the producers as follows:

One-half of such allowable production shall be allotted to the producing units and fractions thereof and the amount allotted to each such unit or fractional unit shall be in the proportion that the open flow capacity of the well (or average open flow capacity if more than one well) on the unit or fraction thereof bears to the total open flow capacity of all units and fractions thereof, the total open flow capacity shall be the total of the open flow capacities of all the units and fractional units as determined under these rules.

One-half of the allowable production be allocated to the producing units and fractional units according to a formula which takes into account acreage and pressure factors as follows:

$$Q = \frac{A}{B} \times \frac{C}{D} \times E \quad \text{where:}$$

A = One-half of the allowable production.

B = Total acreage of producing units and fractions thereof.

C = Rock pressure of well on unit or fraction thereof and if more than one well then the average rock pressure.

D = Average rock pressure as calculated from rock pressures for all units and fractions thereof.

E = Number of acres in unit or fraction thereof.

Q = Allowable production under the above formula.

From time to time the deputy supervisor shall determine the rock pressures so that the above formula may be applied.

New wells in the field shall be considered as forming new unit or fractional units and the allowable production shall be increased to an amount necessary to cover the allowable production which would have been applicable had the previous schedule covered such new units or fractions during the preceding month.

At the end of each calendar month the deputy supervisor shall ascertain the actual amount of gas produced by each unit and under the formula it shall be determined if and to what extent each unit or fractional unit that has overproduced shall be prohibited from further production or be restricted until the units that have underproduced have been permitted to make up the difference.

A map of the units shall be submitted to the deputy supervisor for record in his office. Increased market demand at any time may be met by allocating ratably the additional gas required to all producers in proportion to their ratable share as fixed by the terms of the order.

Special Field Rules

"A"—By the term "casinghead gas" is meant any gas and/or vapor indigenous to the oil strata.

"B"—By the term "natural gas" is meant any gas and/or vapor produced from beneath the surface of the ground in said district except "casinghead gas" as herein defined.

"C"—By the term "gas-oil ratio" is meant volume of gas to oil and water.

"D"—For the purpose of calculating gas-oil ratio only, the term "cubic foot of gas" is meant volume of gas expressed in cubic feet and computed at a base pressure of four (4) ounces per square inch above the average barometric pressure of 14.4 pounds per square inch, a standard base and flowing temperature of 60° F., correction to be made for pressure according to Boyle's Law, and for specific gravity according to test made by the balance method.

"E"—For the purpose of this order any well in said district in which the gas-oil ratio exceeds 500,000 cubic feet to 1 bbl. of oil or any well which is now producing natural gas only is hereby defined as a gas well. And gas produced through a bradenhead of a well equipped to produce oil from a point and/or horizon and natural gas from another point and/or horizon is classified as gas produced from a gas well.

When insufficient sweet gas is produced to supply the demand for residue gas from any natural gasoline extraction plant gas containing hydrogen sulphide may be used for the purpose so long as the residue gas from the gasoline plant is utilized without surface waste.

The flow or production of each gas well shall be restricted to 25 per cent of its potential capacity. Volumetric tests shall be taken by such methods and as often as the commission may direct, but where Pitot tube readings are taken the

(Continued on Page 36)

American Petroleum Institute Mid-Year Meeting in Tulsa, May 17, 18, 19

The mid-year meeting of the American Petroleum Institute will be held at the Mayo Hotel in Tulsa, May 17, 18 and 19, according to announcement made from the general offices of the Institute. Dates for the meeting were chosen at the December meeting of the executive committee, and announcement was withheld until further arrangements could be made.

The sessions of the three divisions of the Institute—production, refining and marketing—at Tulsa will celebrate the third year that mid-year meetings have been held. In 1931 three separate mid-year divisional meetings were held. The production division met in Dallas in June, the marketing division in Chicago in March, and the refining division in St. Louis in April. Last year all three divisions were brought together in Tulsa in June.

The program and division of time for the three sections of the organization will be worked out later, but program committees already have been designated for the division of marketing and refining. W. T. Holliday, as vice president and chairman of the general committee, has appointed Frederick Ewing of the Standard Oil Co. of New York as chairman of the program committee for marketing, with H. D. Frueauff of the Cities Service Co. and C. G. Sheffield of the Standard Oil Co. (New Jersey) as members.

The program committee for the division of refining as announced by D. J. Moran, vice president and chairman of the general committee on refining, follows:

Chairman R. T. Haslam, Standard Oil Development Co.; secretary, R. P. Anderson, American Petroleum Institute; H. W. Camp, Empire Oil & Refining Co., Tulsa; J. Bennett Hill, Atlantic Refining Co., Philadelphia; R. E. Haylett, Union Oil Co. of California, Los Angeles; E. W. Isom, Sinclair Refining Co., New York; K. G. Mackenzie, The Texas Company, New York; Walter Miller, Continental Oil Co., Ponca City; L. W. Parsons, Tide Water Oil Co., Bayonne; Arthur E. Pew, Jr., Sun Oil Co., Philadelphia; J. B. Rather, Socony-Vaccum Corp., New York; A. S. Russell, Standard Oil Co. of California, San Francisco; Herschel G. Smith, Gulf Refining Co., Philadelphia; F. W. L. Tydeman, Shell Oil Co., San Francisco; and R. E. Wilson, Standard Oil Co. (Indiana), Chicago.

The refining committee will begin a series of conferences within a short while to work out a detailed program and assign members so that they may begin studies and preparations of papers.

The program for the division of production awaits a conference between Charles F. Roeser, vice president and chairman, and Carl A. Young, secretary of the general committee.

Geology and Possibilities of Oil in Large Area Northeast of the Defined East Texas Field

By LaVERNE DECKER
Consulting Geologist, Marshall, Tex.

Since the discovery of oil in East Texas in September, 1930, a vast wildcat area has been partially explored and one of the world's major producing areas has been defined. The purpose of this paper is to discuss from a geological standpoint that part of the wildcat territory immediately northeast of present production, and to point out the local regions therein which offer possibility or probability of commercial production. The area particularly includes southeastern Upshur County, northwestern Harrison County and western Marion County, Texas. Comments on region geology extend to parts of the Sabine uplift and the Tyler Basin. See Figure 1.

Acknowledgments

It is quite impossible to extend full and proper credit to the originators of much of the theory and fact contained in a paper such as this one. Many of the writer's theories and conclusions were moulded in their formative stages by the opinions of others as expressed in oral discussions, the details of which are long since obscured by time. Aside from the local geology and a few ideas on stratigraphy and geologic history there is little in this paper of a strictly original nature. Most of the general information upon which the paper is based is to be found in the publications listed at the end of the paper.

Regional Surface Geology

Areal Geology—The region, which lies within the area of Tertiary outcrop, is of a regular topographic form. The drainage is well developed and in a general southeasterly direction of flow.

The accompanying map, Figure 1, shows the region as well as the specific area and the areal geology. It is essentially a composite of maps by Moody, Wendlandt and Knebel and the writer. The limits of available space preclude detailed description here of all of the exposed and subsurface stratigraphic units. However, the absence of such descriptions from this paper is of little importance in view of the many and competent descriptions which have appeared in this and other publications. The exposed strata range in age from lower Sparta down to upper Wilcox. See Table 1.

Regional Surface Structure—The major regional structural features are the Sabine uplift and the Tyler Basin. Their limits are roughly indicated by the path of the Carrizo outcrop as shown in Figure 1. The features are further discussed in the treatment of historical geology. The reader is referred to Moody, Powers, Harris and Fletcher for recent complete discussions of the uplift and to Moody, Dumble, Wendlandt and Knebel and Ellisor for discussions of the basin.

Regional Subsurface Geology

Stratigraphy—The beds underlying the region range downward in age from Wilcox to basal Trinity. The writer knows of no case in which rocks of pre-Comanchean age have been encountered in the area. However, to the north, east and west the older beds have been found in wells as pointed out by Sellards and Miser.

From a commercial standpoint, the basal Gulf unit—the Woodbine sand—is by far the most important formation underlying the area immediately northeast of the field. For that reason it is the only formation discussed in detail. The accompanying sketch, Figure 2, and the following discussion represent the writer's theories, opinions and conclusions relative to the history of Woodbine deposition along its present eastern margin.

Following deposition of the Comanchean the Sabine uplift was elevated, and a period of erosion followed. Evidence is found in the absence from parts of the uplift of all of the Washita and Fredericksburg and part of the Glen Rose and in the down-dip divergence between the Comanchean and younger strata. The conditions are adequately discussed by Crider, Spooner, Fletcher, Teas and other writers.

In Figure 2, "a," "b" and "c" are lower Woodbine. Unit "a" was deposited in a receding sea which had its eastern margin a considerable distance east of the present margin of "c." The landward part of "a" was then reworked by wind and water to form nonmarine "b" and at the same time much of the original sand "a" was transported out into the sea to form marine "c."

When the middle Woodbine sea advanced the marine sand "d" was formed from the material at hand. The eastern margin of the unit was originally farther east than the present margin. Due to structural and topographic changes it in some places extended beyond "b" and in other cases did not reach the present margin of "b." The shale "f" was deposited in the quieter portion of the sea and numerous offshore bar lenses such as "e" were formed.

The upper Woodbine group, "g," "h" and "i" were deposited by a receding sea in a manner similar to "a," "b" and "c" respectively in the lower Woodbine. It is quite probable that the Eagleford shale, "j," is equivalent in age at least in part to the uppermost part of "h" and "i."

Following a post-Eagleford period of erosion, the Austin or Tokio sea advanced and deposited a thin sand member over the landward part of the upper Woodbine as shown in the sketch. Above the sand some shale was deposited and in turn followed by deposition of the Ector tongue of the Austin which pinches out against the Washita as shown. The sketch is offered as a schematic interpretation, not as a scale drawing.

Although the sketch and description seem cumbersome, study of numerous core records from wells drilled in and near the field indicates that the listed events are only the major ones and that the minor oscillations of the Woodbine shoreline were many and varied indeed. It seems quite probable that the eastern edge of the Woodbine sand is a complex body of lenses within lenses and that many of the past production peculiarities and difficulties as well as many to be met in the future can be directly attributed to the condition described. It is probable that sands of Austin, Eagleford, lower, middle and upper Woodbine ages are producing in various combinations in the field.

Another point of interest in regard to Woodbine sedimentation is that in the producing area the sand is fairly clean quartz sand while in the adjacent nonproductive areas the sand is ashy and muddy. Then, too, in the producing zone, locally high sands are less frequently contaminated than the sands in locally low areas. The sand in the low area immediately north of present production is especially ashy and muddy. The sands drilled in the Smitherman and Sinclair wells north of the Marion County nose and the Hindman well in the low south of the nose were ashy, while the sands drilled in the Benedum and Shelton wells on the nose were fairly clean. See Figure 4.

The writer's conclusion is that the highs and lows were in the process of differential movement during the deposition of the sand that that as a result there was greater water sorting of the material on the highs than in the lows. The heavier, cleaner sand was left on the highs and the lighter material was transported into the lows. The conclusion is born out by study of cores from wells in the north part of the field and in the area discussed in this paper.

The Woodbine rests on a Comanchean floor and is progressively overlapped from the center of the basin eastward by increasingly younger beds. In the center of the basin the overlying bed is Eagleford shale while at the eastern edge of the sand it is younger than basal Austin.

There is only a very minor possibility that any of the beds between the Woodbine and the surface will prove to be of

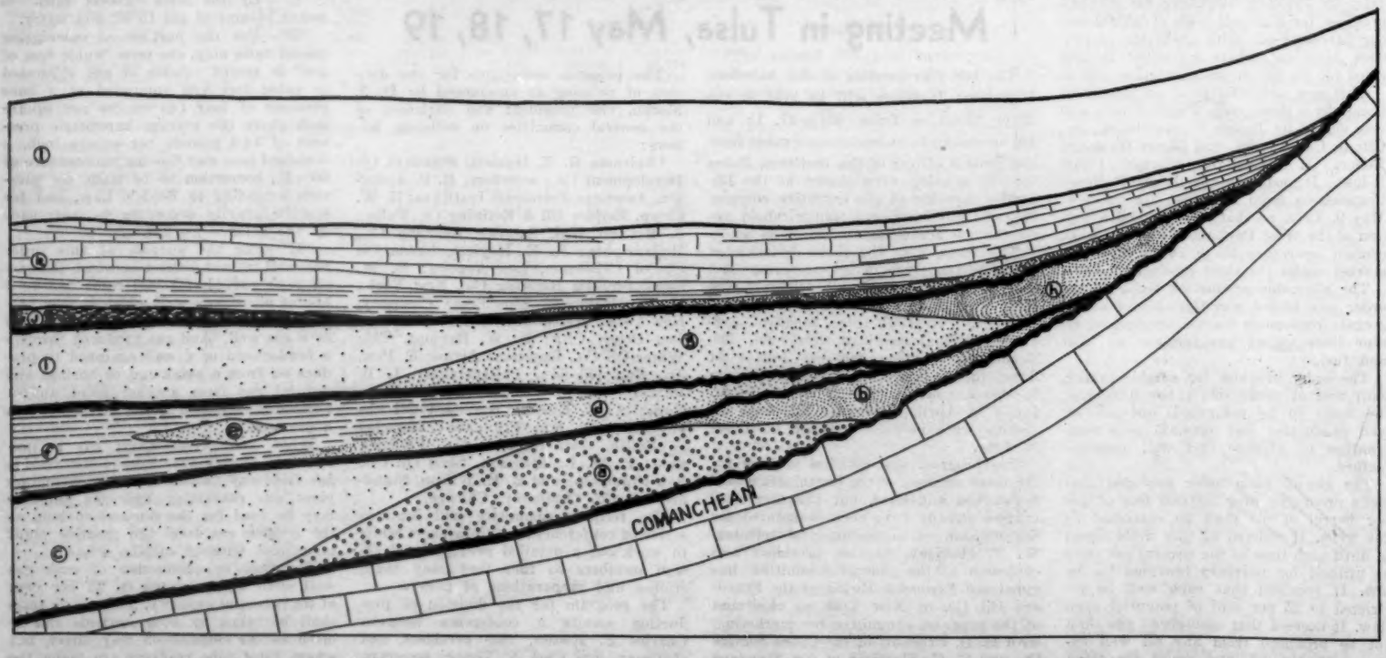

Figure 2. A graphic interpretation of Woodbine, Eagle Ford and Austin sedimentation along West Flank of Sabine Uplift. (See text for explanation)

commercial importance in the area immediately northeast of the field.

Regional Historical Geology

Lack of knowledge precludes discussion of pre-Comanchean history in the area. During Comanchean time the area must have been one of general but stable subsidence. No other set of conditions could have resulted in the deposition of as much as 4,000 feet of sediments which persistently cover the region. The Comanchean was closed by differential folding throughout the Mississippi embayment and a general retreat of the sea from the more positive areas. One of those areas was the Sabine uplift as we now know it. During the post-Comanchean erosion interval much of the Washita and Fredricksburg and some of the Glen Rose were removed from locally high areas.

The initial event in Gulf history was the deposition of the Woodbine sand which has been adequately discussed for the present purpose. During Woodbine time erosion over most of the Sabine uplift continued. Doubtless, there are numerous minor erosional unconformities in the remainder of Cretaceous sediments as pointed out by Stephenson, and although there is evidence that structural movements affected sedimentation on local highs on the uplift, there is little or no evidence of important depositional breaks during the time. Cretaceous time was closed by a general recession of the seas and a period of erosion followed.

The post-Cretaceous erosion interval was followed by the deposition of the Tertiary sediments. Tertiary history is essentially one of alternate advance and retreat of shallow seas with subareal deposition of sands and clays, paludal lignitic deposition and marine deposition of glauconites and glauconitic shales and clays. Close study of surface and subsurface data indicates that local folding has been in progress in the region since Comanchean time.

General Geology of East Texas Field

General Data — The field consists of approximately 115,000 acres of producing oil land. Production is from the Woodbine sand with the possible variations previously mentioned. The sand, which is locally very lenticular, varies in effective thickness from zero at the western water level and the eastern edge to as much as 100 feet in the center of production. Various methods of computation arrive at a total recovery figure exceeding 2,000,000,000 bbls. of oil. More than 20 years will be required to extract that amount of oil.

There was no free gas with the oil at the time of discovery. It was the common opinion among geologists and engineers at that time that the encroachment of water from the west would keep pace with the withdrawal of oil as the field was drained. Study of conditions as they now exist strongly indicates that water encroachment is lagging behind oil withdrawal at least 50 per cent. The condition is attributed to the extreme lenticularity of the sand and the presence therein of much bentonite and other colloidal material, which seriously retards the movement of the water. Among the important results probably will be an increased time necessary to drain the field and the later use of artificial maintenance of pressures in the reservoir.

The extra-technical history of the field's development with its judicial decisions, battle of corporate giants and pygmies and political pyrotechnics all to the accompaniment of wave fronts of well distributed propaganda, is hardly less interesting or important than the technical sequence but this is not the place for a detailed discussion of either.

Surface Geology—The surface geology of the field has received scant attention. Detailed study reveals that there is some surface reflection of the existing subsurface structure. The field is in the area of Queen City and Reklaw outcrop and correlations are open to doubt.

Subsurface Geology—Structure of the field is revealed by almost 9,500 datum figures to be a long monoclinal feature, closed on the north and south ends by north and south dip and on the west by the regional west dip and on the east by the pinched out edge of the producing sand. The upper 170 feet of dip, between the —3,320 and the —3,150 contours on top of the sand constitutes the producing area.

The eastern limit of Woodbine outcrop is near the southwest corner of Pike County, Arkansas. It seems reasonable to assume that the sand underlies that part of northeastern Texas which lies west of a line from that outcrop to the edge of the sand in the field. Study of well logs from the area of the imaginary line and study of isopach contours based on the interval between the base of the Pecan Gap and the top of the Woodbine both strengthen the assumption.

TABLE I.

Formations exposed in, and underlying, Region

SYSTEM	SERIES	GROUP	SUB-GROUP	FORMATION
QUAT.	REC.			
	PLIES.			unconformity
TERTIARY	EOCENE	CLAIBORNE	COOK'S MTN.	Sparta Sand, 0-50' exposed
			MT. SELMAN	Weches, 40-80'
				Queen City Sand, 0-400'
				Reklaw, 10-140'
				Carrizo Sand, 0-50'
		WILCOX		Wilcox, 500-700' locally
		MIDWAY		Midway Shale, 200-600'
CRETACEOUS	GULF			unconformity
		NAVARRO		Arkadelphia clay, 100-150'
				Nacatoch, 300'±
			"Wall Log"	Saratoga Chalk
		TAYLOR	Pecan Gap 500-700'	Marlbrook Marl
				Annona Chalk
				Ozan Fm., Buckrange Sd. at base. Sometimes confused with Blossom Sd. - 100-150'
				Brownstown Marl. 175-200'
		AUSTIN	Arkansas TOKIO	Blossom Sd. at Pap. Ecfor Chalk near base, 250-400'
		EAGLE FORD		Eagle Ford Shale, 0-25'
		WOODBINE		Woodbine Sd. and Sh. 0-500'
				unconformity
	COMANCHE 3500-6000'	WASHITA		Undifferentiated Ls., Sh. & Sd.
		FREDRICKSBURG		
		TRINITY	GLEN ROSE	Upper limestone
				Middle anhydrite
				Lower limestone
			L. TRINITY	Basement Sds. & red Shale

Local Highs

Analysis of contours based on the surface outcrop where possible, base of the Pecan Gap, top of the Woodbine and top of the Comanchean indicates that there are four promising areas of a positive nature northeast of the field. They are the Jamestown high in southeastern Upshur County, the northwest Harrison County high, the western Marion County closure and the west-central Marion County shoreline trap.

The Jamestown High

Surface Geology—The writer has not attempted to work the surface of the Jamestown high in detail. However, reconnaissance methods show evidence that the structure is reflected to some extent at the surface. The post office of Jamestown is in the syncline between the Jamestown and Harrison County highs.

Subsurface Geology—Subsurface conditions in the Jamestown area are very similar to those in the field. The Cranfill-Reynolds' No. 1 Rash was the first producer on the structure. The subsea depth of the sand at 3,380 feet is about 60 feet deeper than the water level in the field. The water level is sufficient indication that the production is not a mere continuation of the field. Probably the Jamestown high is separated from the main field by a sharp syncline but the situation may be complicated by faulting or the low area may be filled with a sand which is impermeable. There are a number of wells now producing on the high but development has been slow.

Late in 1931 the Shasta Oil Co. and others drilled the No. 1 Hall in Upshur County near the Harrison County line.

(Continued on Page 30)

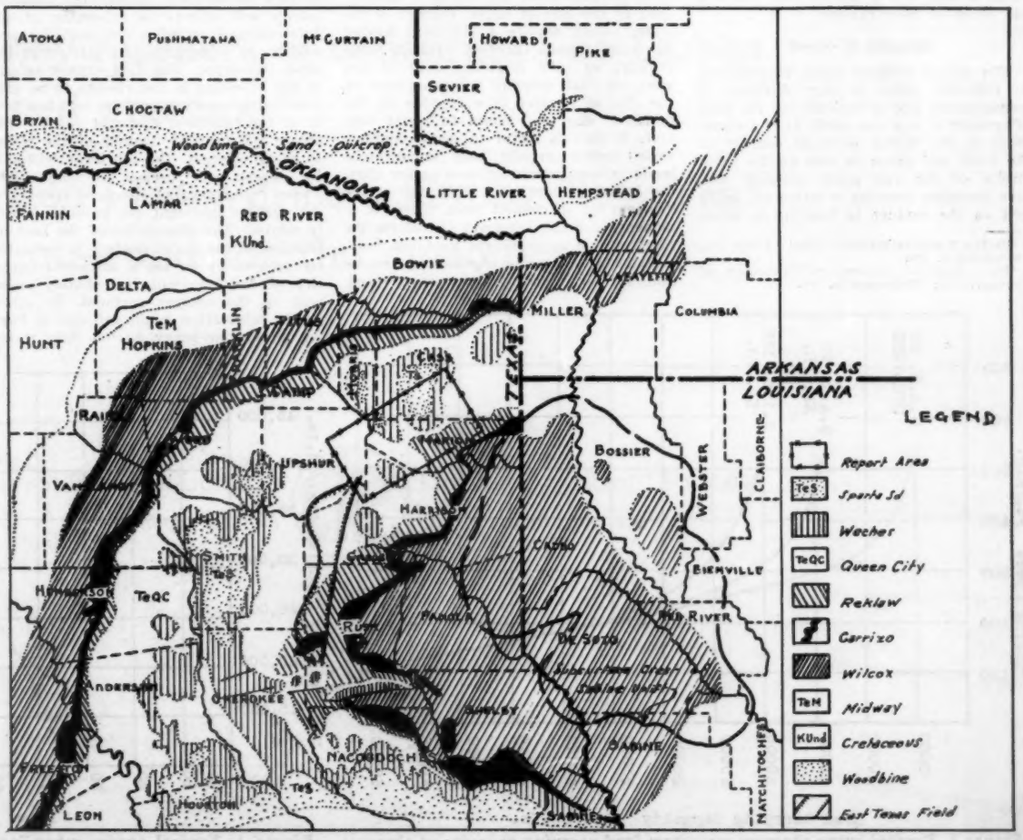

Figure 1. Map showing specific area, general geology and East Texas Field. (Areal geology from available sources)

Evaluation of Extreme Pressure Lubricants by Use of Timken Laboratory Testing Apparatus

By A. P. FRAME[1] and A. K. GRAHAM[2]

The question of evaluating lubricants as to their worth for lubricating the high-speed and highly stressed gears now used in modern automotive equipment is becoming of vital importance to both the petroleum and automotive industries. To test a lubricant by actual service tests is both expensive and unreliable due to so many unknown factors entering into the test.

In order to make a laboratory determination of a gear lubricant it would seem advisable to duplicate the actual conditions, as far as possible, which actually occur where two gears are in mesh. By referring to Figure 1, the reader may observe the type of tooth contact obtained by two spur gears in mesh. The drawing, of course, represents only a cross section view of the gear in mesh with no account being taken of the width of the gear teeth. Also, in automotive equipment, probably the majority of gears have stub teeth, but the relative lubricating problem remains the same. As shown in the drawing both A and B gears are identical and the relative motion of the teeth in contact is strictly a rolling action. However, as the major use for gears is to secure an increase or decrease in rotating speed, ordinary usage calls for one large gear and one small gear in mesh. Under these conditions, in addition to the rolling contact between the teeth in mesh, there is also a rubbing contact where a point on a tooth in one gear slides over the surface of the tooth in the other gear. This rubbing action is what causes the gear teeth to wear and is undoubtedly the major cause of gear failure.

Measure of Speed

The actual rubbing speed encountered in reducing gears is very difficult of measurement and is variable for the time of contact of any two teeth. It is a maximum at the initial point of contact of the teeth and drops to zero as the pitch circles of the two gears coincide and then increases reaching a maximum again just as the contact is broken. In other words, the rubbing speed for any given gear tooth in a reduction gear unit follows a sine curve. It has been stated that in certain types of automotive equipment this rubbing speed may go as high as 900 feet per minute, although for most equipment the rubbing speed probably does not exceed 500 feet per minute.

Referring again to Figure 1, the reader will notice that wherever two teeth are in contact, the line of contact is common to two circles and that therefore the area in contact is infintesimal. If any load at all is being transmitted

Figure 1. Showing gear tooth contact

from one gear to the other gear the load at the line of contact expressed in pounds per square inch of area becomes infinite. Therefore, in order to maintain a lubricant at the line of initial contact of the teeth, would require a lubricant having an infinite load carrying capacity. Obviously, no such lubricant does or can exist, so that actually what happens at the line of contact is a rupture of the lubricant film and metal to metal contact. With this metal to metal contact, wear occurs rapidly and immediately tends to form a contact area rather than the initial contact line. With the establishment of a contact area there is a tendency for the lubricant to reform its film as soon as sufficient area has been established to provide equilibrium conditions for the lubricant and rubbing speed involved. Under these conditions the higher the load carrying properties of the lubricant the smaller the wear will be in order to permit the reforming or partial reforming of the lubricating film. It should be understood that the amount of metal to metal wear in order to establish sufficient area to permit of the existence of a lubricating film is ordinarily very small for any one movement; but the additive results of countless numbers of rubbing contacts accounts for the wear always found in gear reduction units and explains why the wear on gears is so much greater and of a different type than that found in shaft and bearing lubrication. Expressed in other words, the above statement means that in any gear reduction unit, there will always be tooth wear regardless of the lubricant used, and that the load carrying capacity and ability to reform the film of the lubricant will influence the amount of wear.

Procedure to Follow

In order to evaluate a gear lubricant from the standpoint of the above discussion, the following determinations should be made:

1. Determination of the load carrying capacity.

Determination of the load carrying capacity of the lubricant at various rubbing speeds starting with an infinite loading on the lubricant, and determining the maximum loading at which the lubricant will reform its film. It is evident that other characteristics of the lubricant in addition to load carrying capacity will affect the reforming of the lubricating film, of which mobility and ability to dissipate heat are probably most important. The film cannot reform if the lubricant is too viscous to be carried to the contact surface, and similarly if the lubricant does not readily dissipate the heat of friction of the metal to metal contact, the lubricant will fail by reason of thermal decomposition. These two necessary characteristics of a satisfactory lubricant are probably closely related. The dissipation of the heat of friction of the metal contact is undoubtedly secured by having a sufficient quantity of the lubricant immediately adjacent to the contact surfaces. In other words, lubrication might fail due to having either too heavy or too light a lubricant. The heavy lubricant, due to its immobility would not be able to reform its lubricating film after the initial rupture, and the very light lubricant might be thrown away from the contact surfaces due to the centrifugal action of the revolving gears.

2. Determination of the abrasive characteristics of the lubricant.

If the lubricant contains any abrasive agent, the wear on the gears will continue after the reforming of the lubricant film, and the wear will continue as long as there is any movement of the gears.

Timken Tester

In order to evaluate gear lubricants in the light of the above discussion the authors have used a Timken lubricant tester with certain modifications. Essentially this tester consists of a rotating ring which revolves against a flat surface of a test block. The loading is applied by means of weights and a lever so that the test block is held against the rotating ring. Both rings and blocks are machined and hardened steel, and a new ring and a new surface on the block are used for each test. The lubricant to be tested is placed in a container located above the rotating ring and flows by gravity over the ring and block. The ring is driven by a motor through a variable speed reducer so that various rubbing speeds may be obtained. By the use of this revolving ring and flat surface on the test block the initial line of contact between the ring and block has an infinitesimal area with consequent indefinite loading on the lubricant. Essentially, this is exactly the same condition that prevails when two gear teeth in a gear reduction unit comes into contact; and, as with gears, there is a rupture of the lubricating film. Wear occurs on the surface of the block until sufficient contact area has been established to permit of the setting up of equilibrium and the reforming of the lubricating film. Knowing the total amount of the load applied to the contact area, it is possible to determine the load carrying capacity of the lubricant, by measuring the area of the surface in contact when the equilibrium condition was established. Therefore, the load carrying capacity for any given rubbing speed as determined by the area of the scar and loading of the machine, will determine the amount of wear that

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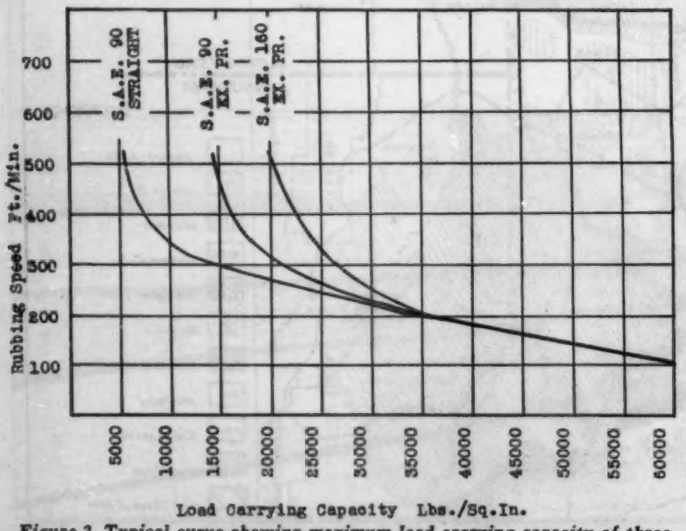


Figure 2. Typical curve showing maximum load carrying capacity of three typical lubricants plotted against speed

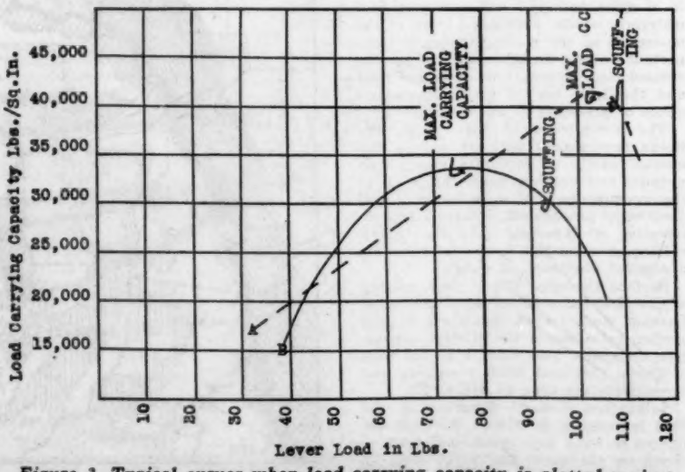


Figure 3. Typical curves when load carrying capacity is plotted against lever load when testing a lubricant

Our 1933 wish to you:

Make your gasoline by Dubbs cracking and get the highest yield of the best anti-knock gasoline at lowest cost (royalty and all)

Treat that Dubbs cracked gasoline with our Universal liquid inhibitor—keep the anti-knock value all in and the gum all out

Sell this gasoline to your customers, be they resellers or consumers, as Dubbs cracked gasoline

Then 1933 will be a Happy New Year for you—and for the customers

Universal Oil Products Co
Chicago Illinois

Dubbs Cracking Process
Owner and Licensor

would take place in reduction gear units for the same conditions. This is primarily true because in both the test and actual service, the sequence of events is the same; i.e., first a rupture of the lubricating film, followed by a reforming of the film after sufficient wear has taken place.

The original method used for evaluating lubricants on this machine was to apply a certain number of weights to the load lever, starting the lubricants flowing, and then start the machine which would come up to the full speed almost instantaneously. Comparing this with actual service conditions, would be equivalent to accelerating a load automotive vehicle from zero speed to full speed almost instantaneously. Also, by testing according to this method many of the results obtained were highly erratic. To overcome this difficulty, the authors installed a motor driven speed reducer which at the beginning of the test would suspend the entire load free from the load lever and which when started would transfer the load at a uniform rate to the load lever by means of a spring.

The present procedure as adopted by the authors is as follows:

1. Put new ring and test block on machine.
2. Put 1 liter of lubricant in container and heat to 200° F.
3. Suspend certain number of weights above load lever by means of speed reducer.
4. Set speed reducer driving the rotating ring to give desired rubbing speed.
5. Start lubricant flowing over ring.
6. Start machine and run for one minute without any load applied to load lever. This will reduce lubricant temperature to about 150° F., where this temperature is maintained for the test. The reason for the adoption of a test temperature of 150° F. is purely arbitrary. The heating element on the equipment as supplied by the manufacturer did not have sufficient surface to maintain a constant temperature of 200° F. for the lubricant; and also with certain lubricants there is sufficient heat developed during the test to raise the lubricant temperature to somewhat over 100° F. Therefore, in order to have an operating temperature capable of being controlled, a temperature of 150° F. was chosen. The control of this temperature is important and in order to secure reproducible results this temperature was held within 5° F.
7. After machine has run for one minute the loading motor is started and the load applied at a rate of 10 pounds per minute. After full load is applied to the lever, the loading motor is stopped. As discussed at the beginning of this article, the original method of conducting tests on the Timken tester called for the starting of the machine under full load. The results so obtained were often erratic and the degree of reproducibility low. Furthermore, this method of test was far more severe than could possibly be met with in actual service conditions. As an alternative method the authors considered the possibility of applying the full load at the beginning of the test and accelerating the speed at the controlled rate until the full rubbing speed was obtained over a definite time period. Due to practical considerations this method was abandoned in favor of the present method where the machine is started at full rubbing speed and the load applied uniformly at a definite speed. The choice of a suitable rate for adding the load was quite thoroughly studied. The rate should be slow enough so that the point of scuffing becomes definite; and yet fast enough so that the test can be completed within a 10-minute period. Longer tests reduce a true load carrying determination due to the wear which takes place; and with very rapid application of the load the scars will show a preliminary scuffing which makes it very difficult to secure proper evaluation. The authors are now using a motor driven speed reducer connected through pulleys and cord with the loading spring and by this means are securing a rate of loading of 10 pounds per minute.
8. Machine is stopped after it has run 10 minutes, which includes the one-minute initial running.
9. The test block and ring are removed from the machine; and the scar in the test block examined. If the scar is uniform and shows no scuffing the width of the scar is determined by means of a scale and microscope which can be read accurately to within one-twentieth of a millimeter. The width of scars so obtained varies from one-half to about 1½ millimeters, depending upon the lubricant and the rubbing speed. The area of the scar is thus determined and knowing the load applied to the contact surface, the load carrying capacity is determined and expressed in pounds per square inch. If no scuffing has occurred the applied load is increased in increments of 5 per cent and the test repeated until scuffing is visible. The maximum load carrying capacity is then reported as the highest load in pounds/square inch determined below the point where scuffing occurs.

Disregards Wear

Some laboratories have established the practice of recording the maximum load carrying capacity in terms of the beam load at a definite rubbing speed, but this procedure disregards the effect of wear on the block. By this method it would be possible for a more abrasive oil to carry a higher beam load than a non-abrasive oil. Furthermore, the maximum load in pounds per square inch may or may not be reached at a point immediately before scuffing occurs, so that any evaluation in terms of beam loading alone would be misleading.

Figure 3 indicates the type of curves obtained when the maximum load carrying capacity of the lubricant is plotted against the loading on the lever. With Lubricant "A," the maximum load carrying capacity of the lubricant was reached at a point immediately before scuffing occurred. With Lubricant "B," this maximum point was reached sometime before the point of scuffing. Scuffing is defined as a scar which to the eye does not have straight outlines, but is of a sawtooth nature.

Using the procedure as outlined above, it is possible to prepare curves for any mobile gear lubricant plotting maximum load carrying capacity against rubbing speed. Figure 2 shows three such curves, two being for E.P. lubricants and one for a straight lubricant. The effect of viscosity on the load carrying properties is evident from a comparison of the two E.P. lubricants; the same E.P. base being used in both lubricants.

In order to evaluate the abrasive characteristics of a lubricant on the Timken machine, the following procedure was followed: A 10-minute test run according to the above procedure with an arbitrary loading on the lever. At the end of the 10 minutes the width of the scar on the test block is determined. A new ring and block are then installed and the load applied as before. This time the test is continued for 6 hours and 10 minutes. The width of the scar on the test block is determined and the difference in width between the two scars is used as an index of the abrasive characteristics of the lubricant.

In general, the lighter lubricants are more abrasive than the heavier ones of approximately the same film strength, and any lubricant containing such substances as free sulphur, talc, etc., gives high abrasive readings by this method. An effort was made to determine the abrasion by means of weighing the blocks and rings before and after the test, but the authors have found that the determination of the width of the scar gives more accurate results.

Balanced Lever

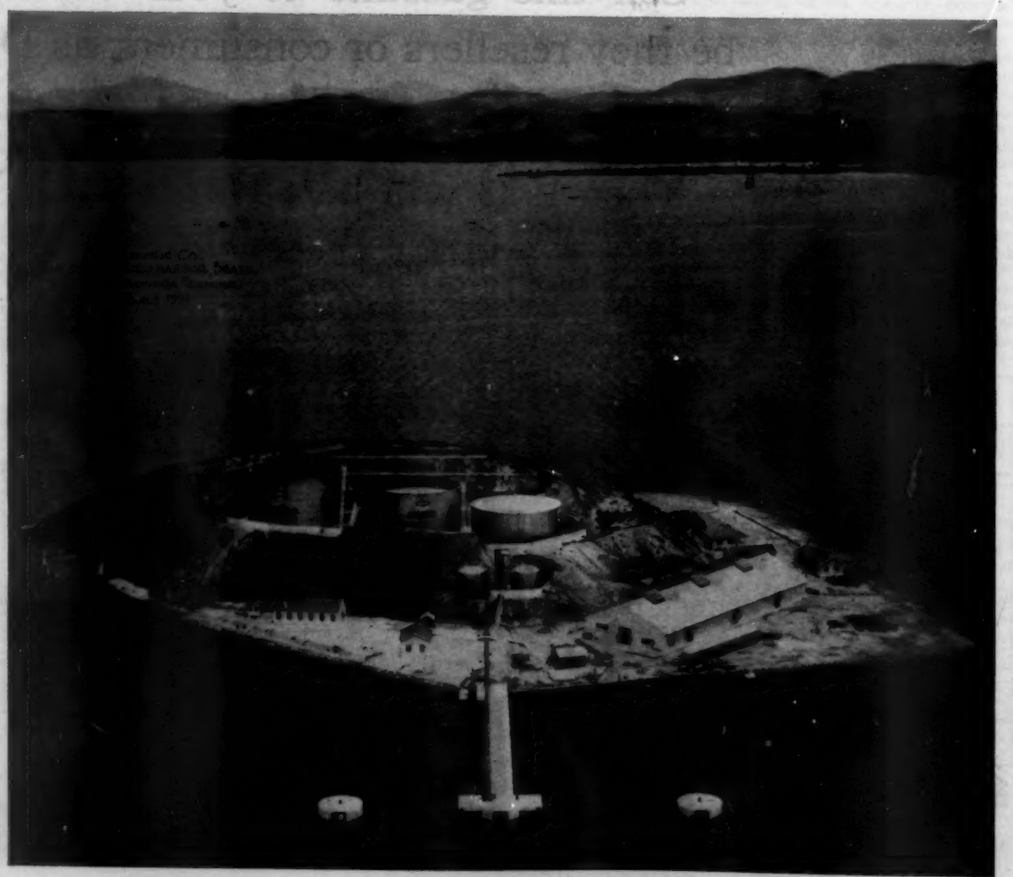
The Timken machine used by the authors is equipped with a balanced friction lever by which it is possible to determine the friction between the ring and the block for any lubricant. Very little work has been done by them along this line because it was found that when using this friction lever the width of the scar in the test block was affected, throwing the load carrying capacity in error.

A summary of important points in the operation of the modified Timken lubricant tester is as follows:

1. Machine should be so coupled with the driving mechanism that it is possible to vary the rubbing speed within fairly wide limits.
2. Machine should be so equipped that the loading may be applied to the load lever at a uniform rate, after the machine is up to full speed. The authors are now using a load application of 10 pounds per minute.
3. Each test should be run over the same period of time. A 10-minute period for the determination of the load carrying capacity of the lubricant is now being used.
4. The temperature of the lubricant should be kept uniform during the test. A temperature of 150° F. for all tests is now being used.
5. The width of the scar on the test block should be determined within one-twentieth of a millimeter. A microscope equipped with an eye-piece scale is employed for this measurement.
6. No scar showing "scuffing" should be evaluated. The point of initial "scuffing" on a test block is indicated by the appearance of small gouges across the scar.
7. Machine should be operated at desired rubbing speed for one minute before the application of the load to the loading lever.
8. Friction lever should not be used during the test period.

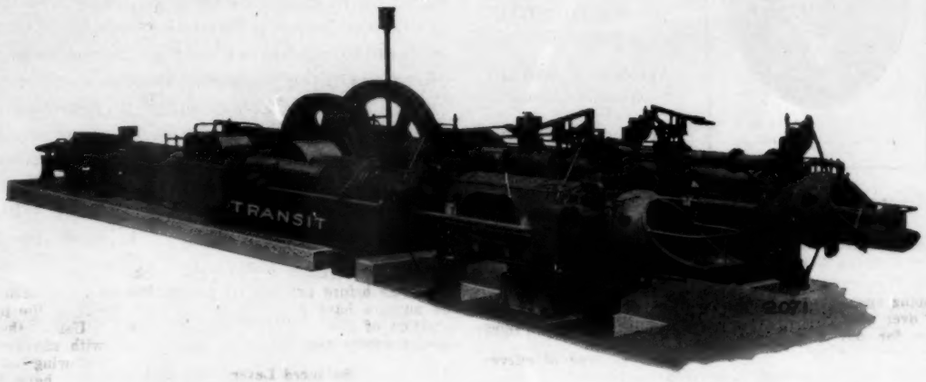
Using the Timken lubricant tester with the modifications as described and following the above procedure, the authors have been able to check results within 10 per cent, with the majority of results being considerably closer. The evaluation of mobile gear lubricants by the Timken modified tester is not particularly an easy task, but it is felt that the results obtained by the above procedure, place true values on the lubricants from the standpoint of gear lubrication.

Deep Water Bulk Plant of the Caloric Company in Rio de Janeiro Harbor



TRANSIT PUMPS

Keep step with progress in refining



Not so many years ago almost any old type of refining equipment would do the work that was required in and around the refinery.

Today, however, competition and progress in the oil industry are forcing the refiner to install the most efficient of refining equipment. Pumps also must keep in step with the advance made in other refining equipment. TRANSIT through its knowledge and close contact with the oil industry is keeping in step with these improvements, by designing and building the most modern hot oil pumps.

The latest TRANSIT contribution to modern refining methods is the gas engine driven hot oil pump which uses refinery gas for fuel. The tremendous savings in fuel and its low operating costs make this the ideal type of hot oil pump for the modern refinery.

We are always ready and willing to work with you on your pumping problems.

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The Oil and Gas Journal

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Is Proration Doomed?

That was the unanswered question being discussed among oil men, both producers and refiners, on the first day of the New Year.

Some went so far as to assert that some of the chief promoters of proration were about ready to give up. Some refiners were quoted as saying they would no longer pay attention to the supposed effect of proration on the crude market, that proration had a chance to steady the market over the past year and the refiners would have been better off if they had disregarded it.

Producers who had loyally supported the proration movement at personal sacrifice in the hope that it would stabilize the market said they had about given up hope that they would ever get the better price promised. They pointed to the effort to maintain a better market during the past year ending in the recent reductions, with the possibility of further cuts.

Once more the old argument was revived that proration was a mistake from the beginning, that we should have let the new fields run wide open as they used to and they would be behind us.

Conservation, they said, was "all bunk" with all that oil in sight. A few more cuts in crude will blow the lid off, it is said, because producers will have to get volume if they cannot get price.

No believer in proration can deny that it is today facing the gravest crisis since the movement began. The reports that its continuance is now a matter of indifference to some of its former supporters are insiduously undermining the confidence on which the whole program rests.

If that suspicion gains ground it may be hard to prevent a collapse of all that has been so laboriously built up in the past five years. Within the past few days it can be heard more and more that we could not have been any worse off without proration than we are now with it. Some even add that we must have been in better shape because we would have been that much nearer exhausting the surplus.

Even the new order reducing the allowable in East Texas is waved aside as of minor consequence. Previous orders have failed to justify the expectations, surplus crude continuing to find its way into competition below the market and being turned into cut price gasoline.

The present disposition, after so many disappointments, is to await proof. Skeptics want to see all wells given connections, all thefts stopped. They do not believe the allowable order will mean anything unless these conditions are met.

Several basic principles are stated as essential: All producers must be placed on an equality as to outlet. There must be assurance that the crude finds its way to refiners on a price parity, taking into consideration differences in transportation costs. Even a small quantity of oil disposed of under the price set for the bulk of the crude is bound to jeopardize the whole system.

So far as East Texas is concerned the present allowable is low enough to assure buyers for all the available crude. The question is will the commission be able to see that only this oil is produced?

There is, of course, no question that a few lease owners have produced oil in excess of their allowable and that there has been theft of oil from leases without the knowledge of the owners. The Texas Railroad Commission is responsible for finding a remedy for that condition which the producers alone are helpless to prevent.

The new law was designed to minimize the abuse of temporary injunctions which often, by permitting production above the allowable, supplied the oil that defeated the purpose of proration. It has become clear that unless Texas can cope with this situation little progress can be made. Competition in selling refinery products is not limited by state lines. Conditions in one state dominating in crude production must affect other states and failure of proration in Texas means failure of proration in Kansas and Oklahoma.

Due to the constantly changing factor in proration during the past several months refinery markets, particularly gasoline, have not been able to reflect the improved general statistical position brought about by proration. Uncertainty over the proration situation has kept the refinery market unsettled, prices reflecting the worst possible.

This has worked a hardship on refiners, particularly those who did not have crude oil production of their own and who have to rely upon their profit from manufacturing operations. Many of these refiners who have consistently paid posted prices for crude have at the same time been forced to compete in a market which was determined by bootleg crude.

Some refiners have already taken the bull by the horns and have announced that their crude oil purchase price will be revised according to the revenue derived from their manufacturing operations.

Unless conditions are changed crude oil prices are likely to be lowered to the basis established by those concerns who have seen fit to disregard proration and dispose of their crude for whatever price was necessary to secure a larger outlet.

This, of course, will nullify the whole purpose of proration which aimed to give the producer a satisfactory return for his reduced volume and will return the industry to the scramble for volume regardless of price.

The fact is that proration has never been adequately enforced to accomplish its purpose. It has been continually subjected to attacks in court, to violations and thefts in the field and to evasions and subterfuges. These conditions have prevented the manufacturing branch from maintaining prices that would justify fair crude prices.

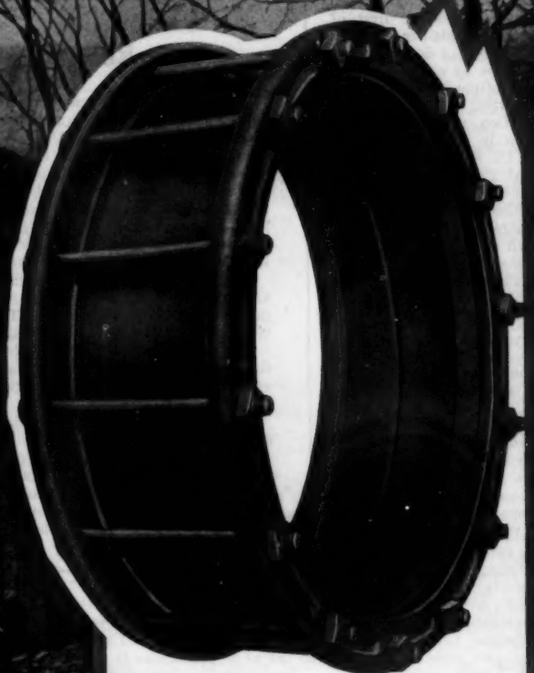
This has resulted in a situation today where many are saying proration is now making its last stand. The producer has failed to receive the compensation he was entitled to for his sacrifice in curtailment. The market has not been stabilized. Prices are falling instead.

Unless this latest effort at curtailment in East Texas is made effective, producers given outlets at posted prices, refiners assured equality of crude at the lowest cost of the established market, with assurance that no more oil will be produced than is allowed, proration may indeed be doomed.

The question for both producers and refiners is if they will then be better off. East Texas wide open may last longer than some think. Getting it behind us may be a longer job than expected and meantime increased production will be sending prices of both crude and gasoline lower and lower.

So far as proration has failed it has been because we failed to have full proration. It might be better to give it a real trial before we open the gates to the deluge.

Across the "EASTERN ROCKIES"



MILES and miles of rocks and slopes . . . that's the kind of country this long gas line crosses in Kentucky, West Virginia and Virginia. Here again, flexible Dresser Couplings simplified the job. Line after line has proved the permanence of Dressers. Special Dresser angle couplings were used for extreme deflections.

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Oklahoma Refined Oil Market Starts Year With Quotations for Several Products Reduced

By C. O. WILLSON

The new year in the Oklahoma (Group 3), refinery market opened the first of the week with considerable uncertainty regarding the probable price developments over the month. Prices on all grades and types of gasoline continued to slump the last few days of 1932 and showed no change the first two trading days of January. As shown in the charts below with low octane U. S. Motor gasoline selling at a low of 2⅝ cents and 26-70 natural gasoline at 2¼ cents prices start the year at practically the same price levels as a year ago which reflects the fact that despite all the efforts made last year to improve gasoline markets, refiners and natural gasoline manufacturers at the start of 1933 are again confronted with unsatisfactory markets for their principal products.

The weakness in the gasoline tank car markets was responsible for the action of the Standard Oil Co. of Indiana and Magnolia Petroleum Co., which on Tuesday announced reductions of 1 cent per gallon in gasoline tank wagon and service station prices applying to all points where normal prices were in effect. The Standard Oil Co. of Ohio at the same time announced an additional 1-cent cut in Ohio following a 2-cent reduction on Saturday.

Price changes in several other products were downward during the past week. Trading in all products was exceptionally slow and a few sellers to secure the small amount of spot business available were giving price concessions in the sale of kerosene, distillates and some grades of fuel oil and gas oil. A little spurt in buying could quickly end the weakness in these products because the supplies are limited with many refiners having sufficient orders to take care of their January output. All grades of cylinder stocks and neutral oils are practically standing still so far as new business is concerned.

The attitude of most of the sellers is to mark time until there is definite action in several matters which presumably will have direct significance in refinery markets. At the start of the week many of the trade were predicting another general revision downward in crude oil prices a development which if it materializes will have important bearing not only on the spot tank car market but also contracts. Should lower crude oil schedules become effective it was conceded that they would probably be accompanied by additional reductions in gasoline tank wagon and service station prices throughout the Standard of Indiana marketing territory and also the southwestern states. Retail marketing conditions have not been satisfactory in this large consuming territory for many months and with the lower crude oil costs, major distributors will be in a position to apply the remedial measure of meeting the competition of those who for one reason or another have been underselling distributors attempting to maintain markets in line with posted crude oil prices and other costs that enter into the manufacture and sale of gasoline.

Several independent refiners at scattered points in the Mid-Continent reduced the prices paid for their crude oil supplies during the past week, the new schedules being from 15 to 30 cents per barrel under the posted schedules of other large and small buyers. One Kansas company adopted a schedule based on the published price for low octane U. S. Motor gasoline similar to that made effective by the H. F. Wilcox Oil & Gas Co., Tulsa, explained in these columns last week. It was thought that the policy of these smaller buyers would result in similar action on the part of large buyers. It has been said that the "viewpoint of the oil business often changes over night" and the changing attitude of the crude oil buyers over the past month certainly supports this statement. Many executives which formerly took the position that the stabilization of the business could only be accomplished through the maintenance of crude oil price structures are now shifting to the view that conditions can-

Refined Market Barometer

General weakness was apparent in refinery gasoline tank car markets throughout the United States over the past week. In some areas substantial price declines developed. Uncertainty regarding the probable crude oil price trends is held responsible for the weakness in gasoline and several other products, the fear being expressed that lower prices for crude will stimulate refinery operations and cause excess products to be thrown on the market. Some of these products now occupy a strong statistical position. This is particularly true in the case of kerosene and distillates used as furnace oil and tractor fuels. No important changes were reported in lubricating oils with new business slow. Wax prices were unchanged.

Mid-Continent—Refinery gasoline and natural gasoline prices lower in all areas. Slightly lower prices for distillates used as furnace oils. Kerosene prices lower in Oklahoma and Texas. Heavy fuels of low cold test and gas oils generally steady. Lubricating oils slow.

East Coast—Refinery gasoline prices lower. Kerosene active and firm. Good movement of furnace oils and gas oils. Fair demand for fuel oils with expectation of lower prices with any additional reductions in crude price schedules.

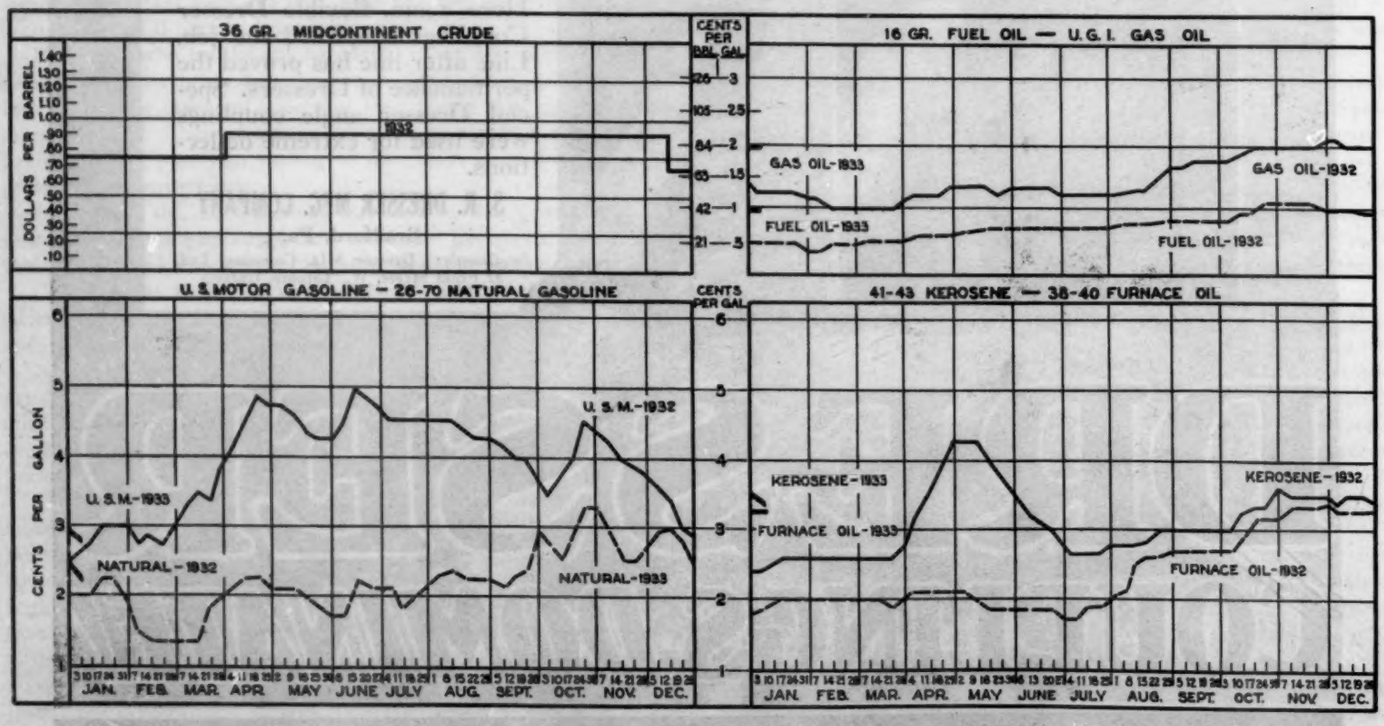
Pennsylvania—Gasoline prices lower. Some grades of steam refined stocks lower. Slow demand for bright stocks. Kerosene firm.

Chicago—Gasoline prices continue decline. Kerosene and prime white distillates steady. Better demand for heavy fuels. Special naphthas inactive.

Gulf Coast—Gasoline weak. Fair demand for light neutrals.

California—Seasonal decline in gasoline demand with complaints of price cutting. Fair demand for kerosene and distillate.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



not be permanently improved except through a lowering of prices to the point where all refiners will be on the same basis as regards crude oil costs and at the same time discourage the development of additional crude oil supplies.

In some quarters the whole plan of proration as carried on over the past two years in the Mid-Continent is being attacked as failing to obtain its objective of industrial stability and the thought is expressed that the industry's markets will never be on a sound and generally profitable basis until the bug-a-boo of potential production in flush fields has been eliminated as a market factor. Contrary to this view, however, are the actions of state officials during the past week in announcing new allowables for Oklahoma and Texas for the purpose of removing excess crude oil production and strengthening that market. The efforts being made in Texas explained elsewhere in this issue are interpreted as being in the nature of a "last stand" to control crude production operations through state proration.

Attack Price Plan

The plan inaugurated by the Wilcox company to base crude oil prices at the wells on published tank car prices for gasoline is being both attacked and supported. Among the latter are those who concede that the Wilcox plan is not perfect but they favor its adoption until such time as a better scheme is devised which will protect the smaller refiners in not being compelled to pay prices for crude oil which are out of line with the returns at their refineries. In any discussion of crude oil price schedules it is apparent there are two divergent opinions based on differences in operating conditions. In one class are the companies whose operations are usually integrated and which produce all or a large part of the crude oil required by its refineries. These companies in general are in favor of maintaining high crude prices regardless of whether the returns from refining and marketing permit profitable operations in these divisions of company operations. In the second class are the refiners who buy all or a large part of their crude oil supplies and their profits are dependent on their ability to refine this crude into finished products and sell them at a profit. It is this class who are hoping that some plan will be evolved which will assure a more equitable relationship between costs of raw material and prices received for finished products.

In regard to the latter strong objections are being made to the plan basing the crude schedules on daily published prices for low octane U. S. Motor as published daily in Chicago. In the first place, it is contended that Chicago is more or less a dumping ground in gasoline sales for a refining territory extending from Pennsylvania to the Rocky Mountain states including the Southwest. It is pointed out that by the dumping of a few cars, the Chicago market is often depressed to prices out of line with other sections. Objections are also made to the use of the low octane U. S. Motor as the base price. This product unquestionably is the "black sheep" of the gasoline market which buyers have used to beat down prices on all products used as motor fuels.

It is contended that the daily and weekly market for this product at all times reflects the worst possible conditions in the refinery market and it is predicted that before the year is over it will be outlawed by all refiners who take pride in the quality of their products and have the refining facilities to manufacture gasoline which comes within the rating of regular or premium grades of U. S. Motor.

The low octane U. S. Motor gasoline was being quoted to the trade at a low of 2⅝ cents in Oklahoma with a low of 3⅛ cents for the regular grade. The trade was disturbed with several reports that distress low octane gasoline was being offered out of Texas as low as 2⅛ cents basis Group 3. So far as Oklahoma was concerned practically all of the distress material was in the low octane grades. Sales of 30-62 400 at a low of 2¾ cents were reported and the higher gravity grades were also fractionally lower. Naphtha prices were one-eighth cent lower than last week.

Natural Gasolines

A slow demand last week brought price concessions in natural gasolines so that sales of 26-70 in Oklahoma were reported at 2¼ cents and 2⅛ cents in Texas. A check the first of the week showed that buying at these lower prices had absorbed practically all the material available for immediate shipment and there was a possibility of firmer prices later in the month.

The lower vapor pressure grades reflected the drop in the 26-70 grade, sales of 18-55 being reported as low as 2⅝ cents. It was reported in natural gasoline circles that the market position of the Mid-Continent would be improved shortly through the removal of a large quantity of low vapor pressure material which for several months has been sold on the open market. It is said that with the expiration of certain contracts this month and next, this gasoline will either be absorbed at the company's affiliated refineries or sold on contract to large refiners who will not offer it on the open market. The amount involved is around 200 cars monthly.

Kerosene and Distillate

Prices on kerosene and distillate are one-eighth cent lower than last week in sales to the trade. This weakness is due to slow buying as the quantity of material offered has not increased. Sellers are not alarmed at this weakness for it felt with limited storage a large increase in crude runs to stills would be necessary before any large decline in prices would develop.

Other Products

Residual fuels of low viscosity are steady with more offerings of the high cold test grades. Occasional sales of U.G.I. gas oils are reported under 2 cents, basis Group 3, but in Oklahoma are able to maintain a low of 2 cents. Sales of high flash gas oil suitable for furnace oils when blended with low flash material were reported as low as 2⅝ cents.

Recommended Changes in Standards for Fuel Oils Are Distributed for Study

Revisions in commercial standards for fuel oils as recommended by a special committee of the American Society for Testing Materials are being submitted to producers, distributors and users under the auspices of the Division of Trade Standards of the Bureau of Standards, Department of Commerce at Washington, D. C. Those interested are being asked to express their approval or disapproval of the new standards which are the result of a general conference in January, 1929, when the A.S.T.M. committee was asked to make suggestions regarding changes in specifications.

Six grades have been recommended for various types of fuel oil burning equipment.

Properties*

Grades 1 to 4, inclusive, shall be hydrocarbon oils free from water, acid, grit

(Continued on Page 37)

TABLE 1—DETAILED REQUIREMENTS FOR FUEL OILS 1, 2 AND 3
(For method of test see paragraph indicated)

Grade of oil:	Flashpoint min. (deg. F.)	Flashpoint max. (deg. F.)	Water and sediment max. (per cent)	Pourpoint* max. (deg. F.)	Distillation test 10% point, max. (deg. F.)	Distillation test Endpoint, max. (deg. F.)	Distillation test 90% point, max. (deg. F.)
No. 1	†110 (¶3)	165 (¶4)	0.05 (¶5)	15 (¶7)	420 (¶8)	600 (¶8)	...
No. 2	†125 (¶3)	190 (¶4)	0.05 (¶5)	15 (¶7)	440 (¶9)	...	620 (¶9)
No. 3	†150 (¶3)	200 (¶4)	0.1 (¶5)	15 (¶7)	460 (¶9)	...	675 (¶9)

*Lower or higher pourpoints may be specified whenever required by conditions of storage and use. However, these specifications shall not require a pourpoint less than 0° F. under any conditions.
†Or legal.

TABLE 2—DETAILED REQUIREMENTS FOR FUEL OILS 4, 5 AND 6
(For method of test see paragraph indicated)

Grade of oil:	Flashpoint minimum (deg. F.)	Flashpoint maximum (deg. F.)	Water and sediment maximum (per cent)	Pourpoint, max.	Viscosity, maximum
No. 4	150 (¶3)	(*) (¶4)	1.0 (¶5)	(†) (¶7)	Saybolt univ. at 100° F., 125 sec. (¶10)
No. 5	150 (¶3)	...	1.0 (¶5)	...	Saybolt Furol at 122° F., 100 sec. (¶10)
No. 6	150 (¶3)	...	Water (‡) (¶6) 0.25 Sediment (¶6)	...	Saybolt Furol at 122° F., 300 sec. (¶10)

*Whenever required, as for example, in burners with automatic ignition, a maximum flashpoint may be specified. However, these specifications shall not require a flashpoint less than 250° F. under any conditions.
†Pourpoint may be specified whenever required by conditions of storage and use. However, these specifications shall not require a pourpoint less than 15° F. under any conditions.
‡The total water plus sediment shall not exceed 2.0 per cent.

American Petroleum Institute Weekly Refinery Statistics

Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Gasoline stocks. (4) Gas oil and fuel oil stocks. All figures in 42-gallon barrels.

Week Ending December 24, 1932, Compared to Week Ago

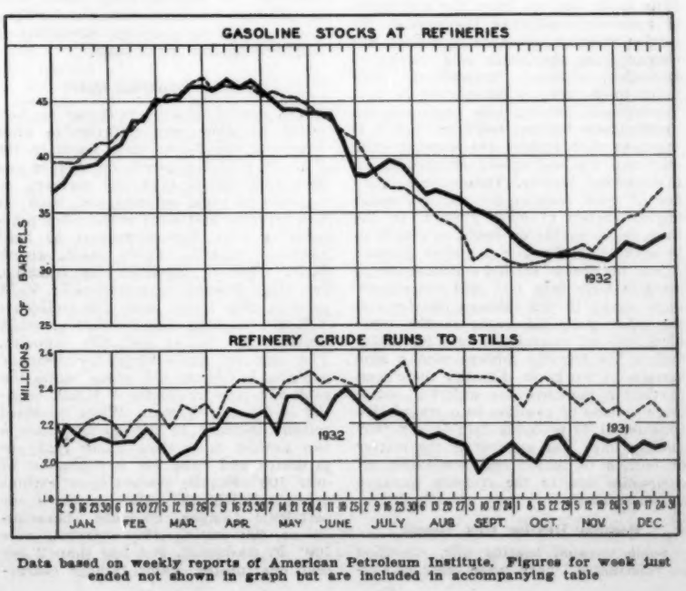
	Week ending December 24 (1)	(2)	(3)	(4)
East Coast	91.1	436,000	4,065,000	8,224,000
Appalachian	95.0	79,000	1,127,000	792,000
Ind., Ill., Ky.	97.5	279,000	3,293,000	3,426,000
Okla., Kans., Mo.	84.9	199,000	2,195,000	2,706,000
Tex. Gulf	97.7	415,000	5,936,000	8,083,000
La. Gulf	97.3	84,000	1,065,000	2,697,000
Inland Texas	56.4	83,000	1,231,000	2,056,000
N. La. and Ark.	88.5	43,000	205,000	475,000
Rocky Mtn.	90.8	26,000	1,130,000	461,000
California	94.6	441,000	12,458,000	99,417,000
Total U. S.	91.6	2,085,000	33,695,000	128,370,000

Because of holidays A.P.I. figures not available in time for publication.

Week Ending December 24, 1932, Compared to Year Ago

	Week ending December 26, 1931 (1)	(2)	(3)	(4)
East Coast	100.0	453,100	4,480,000	7,912,000
Appalachian	91.8	88,300	1,330,000	1,601,000
Ind., Ill., Ky.	98.9	283,400	4,181,000	5,577,000
Okla., Kans., Mo.	89.6	203,200	3,505,000	4,365,000
Tex. Gulf	99.8	447,900	6,784,000	8,845,000
La. Gulf	100.0	116,700	1,100,000	3,168,000
Inland Texas	.....	114,500	1,739,000	3,028,000
N. La. and Ark.	.....	58,200	162,000	902,000
Rocky Mtn.	89.4	25,600	1,665,000	750,000
California	97.1	432,100	13,203,000	96,393,000
Total U. S.	95.2	2,233,000	37,199,000	132,541,000

Because of holidays A.P.I. figures not available in time for publication.



Data based on weekly reports of American Petroleum Institute. Figures for week just ended not shown in graph but are included in accompanying table

Small Gasoline Stocks and Day-to-Day Buying Mark New Year in the Chicago District

By ROBERT C. CONINE
Chicago Bureau, The Oil and Gas Journal

CHICAGO, Jan. 2.—Current lack of buying activity is taken as a matter of course with the turn of the year, and no basic weakening in the petroleum industry's setup at the start of 1933 is predicated in the fact that tank car prices for the principal product have continued to move down fractionally. Cheaper gasoline has made its appearance in the Chicago district markets on numerous occasions in the past two years, and the causes have been traceable to two superficial influences: Service station and tank wagon price wars in adjacent territories (Ohio, today, for example), and the periodic recurrence of financial illness among a group of small refiners located in the newer crude oil production areas. Ohio refiners have been looking for spot business in the Chicago district since December 21, when Standard Oil Co. of Ohio reduced the statewide service station price structure 2 cents a gallon. Middle octane gasoline was offered at 6.06 cents a gallon, f.o.b. Toledo. On December 31, Standard Oil Co. of Ohio reduced the statewide structure on all grades 2 cents again, and among the latest offerings which may be handled by Chicago district marketers is that of a 64-68 gravity, 80-90 initial and 380 endpoint, 60-65 octane gasoline at 5.625 cents a gallon, f.o.b. Toledo. In the matter of the small, usually tyro, refiner who is constantly forced to liquidate stocks to pay salaries and bills, the manifest tribulations of the clan has not retarded its growth. One of these days, probably, the oil companies will conduct training schools in poultry raising, department store administration, and so on, in the hope that not all of the experts they may be forced to let go will become production and refining and marketing executives.

Weather Has Favored Gasoline

The weather of the past week has left little to be desired from the standpoint of motoring conditions. Business at the service stations continues to reflect this change from the bitter cold earlier in December, although temperatures have fallen to the normal January levels. This improvement has not been communicated to wholesale buying, however, and it is apparent that jobbers are entering 1933 with the smallest stocks of gasoline in their recent history. There are a number of good reasons for the day-to-day buying tactics of most jobbers. In the first place, buying on credit is practically a thing of the past for most jobbers. Again, the service station and tank wagon markets have been and still are exceedingly shaky in the Chicago district and the other principal areas in the territory, and the competitive race for dealer outlets has left the jobbers with a slim margin to work on. Finally, there's no particular incentive for ordering out a large volume of gasoline as a speculative venture. It is probably safe to say that jobbers have lost ground in the matter of outlets to major and semimajor oil companies and to the growing trackage station groups.

Peculiar Heating Oils Appear

Some unusual heating oils, classified as "distillates," have made their appearance in the Chicago district markets, usually at about a quarter of a cent under the ruling price ranges. These heating oils have flashpoints ranging from 90° F. open cup, to 115° F., while the endpoints usually extend beyond 700° F. It is interesting to note that at this time several cars of this type of "distillate" have been sealed up by authorities at Minneapolis. A similar situation in Milwaukee was reported in these columns several weeks ago. Buyers are reported to be watching specifications of the heating oils shipped to them very closely and a considerable number of rejections are resulting. The rejected shipments represent the bulk of the alleged "softer distillate markets" in this district. A small local refiner whose plant takes from 10 to 14 cars of Michigan crude oil daily offers materials under the going markets, but the output of this plant has no effect on the prices of full specifications materials.

One major company is offering a blended material of 22-26 gravity, 200 sec. at 100° F. viscosity, and 230-240 flashpoint, zero cold test, at 65 cents a barrel, Group 3. This price is 10 cents a barrel under the ruling price range for the 22-26 zero fuel oil, but it is pointed out that the blend, is a dressed-up 18-degree gravity 40 cold test fuel oil, which would otherwise find no takers in this district. This company continues to quote a price of 3¼ cents, Group 3, on its 32-36 special gas oil (low flashpoint). The zero U.G.I. type of gas oil is extremely scarce and according to reports is being blended by refiners with 28-30 zero fuel oil. Shell Petroleum Corp., who produce a 26-28 gravity zero fuel oil rather than the 28-30 at their East Chicago plant, went out of the open market last week on this fuel oil. The corporation has been selling a limited quantity of 26-28 zero material at $1 to $1.05, depending on destination.

Kerosene Markets Uncertain

The kerosene tank car markets are beginning to reflect a weaker statistical position. Buying for blending to produce heating oils eased up slightly both for inventory reasons of this time of year and because a week of warm weather took the edge off buying. More small communities are turning to kerosene for lighting and cooking purposes, according to scattered reports in the state.

Special Naphthas Quiet

The special naphtha tank car markets failed to show any unfavorable after effects of the 1-cent slash made in the V.M.&P. naphtha, petroleum thinner and petroleum spirits tank car markets, as reported in these columns last week. It was expected that some of the other products, at least such a product as light cleaners' naphtha, would react accordingly. Cleaners' naphtha, for instance, has the following characteristics: 56-58 gravity, 200 initial and 320 endpoint; V.M.&P. naphtha characteristics: 56-58 gravity, 200 initial and 330 endpoint. The tank car price range for cleaners' naphtha is 6⅝ to 6⅞ cents, while the tank car price range for V.M.&P. naphtha is 5¼ to 5½ cents. While Stoddard solvent includes in its specifications a ban against more than 2 per cent unsaturates and calls for a flashpoint of over 100° F., the general specifications are practically the same as those for petroleum thinner. Stoddard characteristics: 300 initial, 410 endpoint, over 100° F. flashpoint, and less than 2 per cent unsaturates. Paint thinner characteristics: 300 initial, 415 endpoint, 83° F. flashpoint (100° often demanded). Both must be water white. Price ranges are: Stoddard solvent, 6½ to 6¾ cents; paint thinner, 3⅞ to 4⅛ cents. And this whole mess goes back to the anxiety of one refiner to muscle in on another major refiner's account involving from five to seven tank cars of naphtha used to wash off printing press type.

Hope for Upturn in Mid-January

In Chicago district oil trade circles a decided betterment in all of the petroleum markets, from crude oil to gasoline, is hoped for by the middle of this month. Hope is used advisedly, as the refiners and marketers have ceased to expect things. Their expectations have been baffled so persistently in 1930, 1931 and 1932 that the most any of them will concede is an acknowledgment that crude production has been curtailed, that refiners have reduced their runs to stills, and that stocks in storage are a good deal below previous years, but also that these reductions are still inadequate in view of the curtailed demand. Practically all of the oil men have now come to realize that they are the hapless victims of the most inexcusable tax discrimination since the salt tax sent the French peasants on the quest of a regal head. Accounts published in Chicago are to the effect that President-Elect Roosevelt opposes a general sales tax but is "open" on the matter of Federal taxes assessed against the oil industry. One refinery executive said in this connection: "Our Washington politicians, whose experiences in the oil business are limited to proposals and acts which cut the appropriations of bureau departments of service to the oil industry; to hearing the speeches of a Borah assailing the "high" price of gasoline (more than a third of the price representing state taxes), and the belittling of and agitation against the one commission which might help the oil industry straighten out its interstates proration program, know how to make money out of the oil game even if the oil men themselves cannot get out of the red. It is inconceivable that anything connected with the oil business has been left untaxed, but if you think of anything, for heaven's sake keep it quiet or there will be a new interpretation in the 1932 Federal tax laws."

The Benzoline Motor Fuel Co. (which supplies gasoline to the Chicago taxicabs and buses) business of 125 tank cars of low octane gasoline for this month went to a major refiner at a reported price of 2.5 cents a gallon, Group 3. In December the Benzoline company paid 2.35 cents a gallon on a similar volume.

Service Station Situation

While the only changes announced by Standard Oil Co. (Indiana) this week in service station and tank wagon postings at principal points in the territory represent cuts, there have been numerous upward revisions from day to day at small points throughout the territory. At St. Joseph the service station price of the regular gasoline was reduced from 13 cents to 10.9 cents on December 21, and on December 24 this price was further reduced to 9.9 cents. Ethyl gasoline at St. Joseph was cut to 12.9 cents. The price of the third grade and the regular grade gasolines at this point are identical. At Peoria the third-grade gasoline price was cut 2.5 cents to 11.5 cents on December 29. Price cutting and pressure on the gasoline tank car markets in Chicago district are seriously threatening the Chicago service station and tank wagon prices.

Gasoline Tank Car Prices

Monday is being observed as a legal holiday and very little marketing is being done. However, gasoline tank car markets are discounting any adverse developments in the service station postings, and while slightly lower than last week the low limit set by certain major refiners as a possible bottom for the turn of the year has not been reached. U. S. Motor and other grades moved down an eighth of a cent. The aviation material declined a quarter of a cent, possibly in sympathy with the much weaker natural gasoline markets. Prices Monday were: U. S. Motor of no octane specifications, 2⅝ to 2¾ cents; 60-62 400 endpoint gasoline, 2¾ to 2⅞ cents; 64-66 375 endpoint material, 3⅝ to 3⅞ cents; aviation, fighting grade, no octane specifications, 4¼ to 4½ cents; 68-70 360 endpoint gasoline, 4 to 4⅛ cents.

Special Naphtha Tank Car Prices

The special naphtha tank car prices Monday were unchanged from last week. For reasons already pointed out several of the products are in a much weaker position and liable to downward revision of as much as a cent.

Kerosene Tank Car Prices

The kerosene tank car markets in Chicago district were holding in price much better than could be anticipated. Kerosene has been shipped for prime white distillate and in some cases (colored with dark 32-36 distillate or even heavy fuel oil) as straw material, at the distillate prices. Prices as low as 3 cents were heard on kerosene shipped from East Texas, North Texas, Oklahoma and Louisiana. Toledo kerosene for movement into eastern Michigan was also available at this price. Representative Chicago district movement showed prices in the order of 3⅜ to 3½ cents for the 41-42 water white kerosene, and 3½ to 3⅝ cents for the 42-44 water white material.

Distillates and Fuel Oils

The return of cold weather brought life back to the distillate and residual fuel oils this week. While there is a lot of material available on the markets at prices under the ruling brackets, this material is off specifications and a large part of it would actually prove dangerous for use in heating plants because of its low flashpoint. Some is high cold test material and usually contains an excess of sulphur.

Rather than weakening, it appears that most sources of suitable distillates and fuel oils are curtailing their sales and it is the fartherest thing from their thoughts to cut prices in order to move material. If the jobbers wish to jeopardize their reputation by palming off inferior oils on their customers they can buy their stocks at a quarter to a half cent under the following prices: 38-40 light straw distillate, 3⅜ cents; 32-36 straw distillate, 3⅛ to 3¼ cents; 38-40 straw distillate, 3¼ to 3⅜ cents; 32-36 special gas oil, zero, 3¼ cents; 32-36 industrial gas oil, 2¼ to 2½ cents; 28-30 zero fuel oil, $1.10 to $1.15 a barrel; 26-28 zero fuel oil, $1 to $1.05 a barrel; 22-26 zero fuel oil, 75 to 80 cents a barrel; 18-22 zero fuel oil, 65 to 70 cents a barrel; below 18 degrees zero fuel oil, 60 to 65 cents a barrel. Petroleum coke prices are unchanged.

Gasoline Markets on East Coast Irregular, With Fractional Cuts in Tank Car Prices Possible

By A. E. MOCKLER
New York Bureau, The Oil and Gas Journal

NEW YORK, Jan. 2.—Motor fuel markets in the East Coast area showed continued unsettlement during the last week, both in the refinery and tank wagon divisions, and the market undertone remained soft, in sympathy with lower crude and products prices in the Southwest. Recent downward revisions in tank car gasoline prices by major refiners have not yet fully readjusted the market position to the point where price cutting has been eliminated, and unless the Group 3 and Gulf Coast markets show an unexpected recovery in the near future, further fractional price cuts in tank car markets at some points in the East appear inevitable.

Featuring last week's market was the downward scaling of export gasoline prices by suppliers at the Gulf, and the renewed buying interest on the part of French purchasers. Gulf Coast motor fuel quotations are now on a competitive basis with Constanza, and domestic sellers are hoping that this will make for an early revival in export sales.

Kerosene continued the strongest product in the list throughout the week. Posted prices were not changed here, but export quotations firmed up further at the Gulf. Considerable California kerosene is moving eastward to aid refiners in this area in filling the abnormal demand for burning oil, and production of this product continues rather large at plants in this area.

Bootleggers Checked

Major marketers in the East are watching with close interest developments in the current campaign of prosecution of gasoline bootleggers in New York State who have been marketing unbranded motor fuels under the brand names of leading refiners.

A number of convictions have been obtained during the past fortnight in the metropolitan area, and it is believed that the success attending these prosecutions will lead marketers to initiate similar corrective legel action in other parts of the State. The convictions thus far have been on complaints by Socony and Shell.

The prompt legal action taken by these companies is expected to have a salutory effect upon many retail station operators who have been uncertain as just how they might meet the competition of those retailers who have been "getting away with" brand substitutions. These retailers have felt that unless their suppliers could protect them from this type of competition, through protecting legitimate brands of gasoline, they would have no recourse but to enter the "gyp" business themselves, and the present campaign against bootleggers has not come any too soon.

East Texas

East Texas continues the enigma of the industry and pending developments in this field will have an important bearing on the price trend for refined products in Atlantic Seaboard territory.

Recent price cuts forced by the continued heavy production in East Texas have seriously undermined the position of the bunker fuel market, one of the most important divisions of eastern refining and marketing operations, and while the short shutdown of the field has tended to reassure buyers of fuel oil somewhat, the general tendency is still weak, and refiners are apprehensive lest a general downward revision of fuel oil prices will be forced at East Coast ports.

Motor fuel made from cheap East Texas crude and shipped to East Coast ports by tanker has also played an important part in the recent easing off in the position of the motor fuel market here.

Refinery Gasoline

Further weakness has developed at several points in the territory. U. S. Motor gasoline, under 65 octane, is now posted at 5¾ cents per gallon, in tank car lots, by one seller locally, although major refiners continue to ask 6 cents per gallon for this grade. Boston tank car sellers are quoting 6 cents, and the same figure applies at Charleston, but Baltimore is witnessing continued price shading, with the market posted at 5¾ to 6 cents, and business reported down to 5½ cents per gallon.

For gasoline of 65 octane number and above, the market is likewise witnessing some price cutting. Locally, sellers post 6 to 7 cents per gallon for tank car shipments of this grade, with most of the major refiners quoting 6¼ cents. Boston and Charleston are likewise posted at 6¼ cents by principal suppliers, although at Baltimore an extreme range of 6 to 7 cents per gallon is shown.

Cold, rainy and foggy weather through the greater part of the Atlantic Seaboard area has tended to hold down consumption during the week, and with year-end inventories at hand and the market tone definitely inclined to softness, jobbers have been holding purchases down to minimum requirements.

Gasoline from the Gulf Coast is moving into East Coast markets in fairly large volume, and unless the market in the Southwest should show an early turn for the better, it is believed that competition from motor fuels from that territory will force another price cut in tank car markets in the East.

Kerosene

Refinery sales have continued heavy, and tank car shipments have been unusually large for this time of the year. Leading refiners continue to post 5½ cents per gallon for 41-43 water white, with 6 cents asked in one or two instances, and indications that the general market may move up to that level if demand holds at present levels.

Marketers report that they are getting a continued heavy demand for kerosene and retail prices are steady and unchanged throughout the territory. A considerable proportion of the "new business" in kerosene appears to be coming from consumers who are using this oil in their range burners.

Fuel Oils

Refiners continue to post bunker "C" oil at 75 cents per barrel, bulk, at terminals, but a definitely easier undertone is in evidence at some points in the territory, and maintenance of the market at present levels appears problematical. Demand was holding up fairly well, and contracts with major marine consumers in most instances have carried over into 1933.

The Diesel oil market was likewise quotably unchanged during the week, at $1.65 per barrel, bulk, at terminals. While reflecting the easiness of the bunker "C" market to some extent, the price outlook for Diesel oil appears more favorable.

Tank car Diesel oil markets are quiet and unchanged at 4 cents per gallon, f.o.b. terminals.

Gas Oil

A softer market has developed on gas oil, with renewed price cutting by independent sellers, and refiners are now booking business at 3¾ cents per gallon, tank car lots, in many instances although the posted price for 28 gravity minimum oil holds unchanged at 4 cents, terminals.

Refiners have booked a substantial volume of gas oil business with gas manufacturing companies for 1933, although there is a growing inclination on the part of these consuming manufacturers to substitute the heavier and cheaper grades of fuel oil wherever possible.

Furnace Oil

Gallonage has continued heavy, with refinery markets steady. Principal sellers post 36-40 gravity oil at 5 cents per gallon, 32-36 gravity at 4 cents, and 21 gravity industrial fuel oil at 3½ cents per gallon, all in tank car lots, f.o.b. terminals. Considerable furnace oil is moving into eastern ports from California and the Gulf.

Retail furnaee oil markets have steadied somewhat, and while there is still a little price shading reported in some parts of the area, principal marketers in most instances are adhering to posted prices. The price cutting thus far has been due almost entirely to the activities of new sellers in certain territories, rather than to any inherent weakness in the market price structure.

Lubs

Continued dullness was reported in cylinder oil markets throughout the week, but sellers were looking for an early upturn in export buying, reports from consuming markets abroad indicating that inventories are unusually light, even taking into consideration curtailed consumption in some areas. Spot 630 flash, steam refined, recovered somewhat during the week and was quoted at 24½ to 25 cents per gallon, a half cent advance, and a corresponding gain was shown on bright stock, No. 8 color, which was up to 24½ to 25 cents per gallon. Other grades were quotably unchanged.

An easier undertone was in evidence on neutral oils. On pale engine oil, sellers were quoting 230-3¾ at 9¾ cents per gallon, a reduction of one-quarter cent, with 180-3¼ at 9½ cents and 100-2¼ at 5 cents. Red engine oil was quoted unchanged at 9½ cents per gallon for 300-6½ color, and one-quarter cent lower on other grades at 8¾ to 9 cents for 250-6 color and 8¼ cents per gallon for 200-6 color. Demand was likewise sluggish on these oils.

Paraffin Wax

Limited trading was reported on the spot position, and buyers were not inclined to come into the market to any extent to cover their first quarters' requirements in the new year. Recent price advances by refiners are being strongly resisted by consumers, and the market is still at a stalemate in so far as domestic buying is concerned. Quotations were unchanged last week.

Export inquiry for both crude scale and fully refined grades has increased somewhat during the past week, with buying interest still centered principally on the former grade.

There were no price changes reported on petrolatum last week, and business was on a hand-to-mouth basis throughout the period.

Exports and Imports of Refined Products; Receipts of California Oils in the East

NEW YORK, Jan. 2.—Lower prices for gasoline at the Gulf have stimulated export buying interest, and inquiries for two 10,000-ton cargoes of 64-66 375 endpoint came into the market late in the week, both for France. One cargo is for February loading and the other for lifting the following month. Suppliers at the Gulf have scaled their export prices downward, and are now quoting U. S. Motor at 3¾ cents per gallon, with other grades quoted at 4 cents. These prices compare with present posted prices of 4.44 cents per gallon for light gasoline (comparable to U. S. grade 64-66) and 3.79 cents for heavy gasoline (comparable to U. S. Motor) at the Rumanian export terminal at Constanza. Thus, U. S. Gulf prices are once more on a competitive footing with Rumania, and Gulf suppliers are looking for more business from the Continent in consequence.

Export kerosene continues firm and in light supply at the Gulf. Prime white is quoted unchanged at 4¼ cents per gallon, but water white is up an eighth cent per gallon at 4½ cents. No. cargo business was reported during the closing week of the year.

Three export cargoes were arranged during the week, as disclosed by the following tanker charters:

Motorship Beaumont (Norwegian), 7,700 tons maximum, clean, North Atlantic to United Kingdom/Continent, 6s. 10½d., option Gulf loading, 8s. 9d., January loading.

Motorship Vivi (Norwegian), 3,853 tons net, clean, North Atlantic to Rio de Janeiro and/or Santos, 9s. 6d., one port, 10s. 3d. both ports, January loading.

Motorship Ruth (Norwegian), 3,224 tons net, clean, North Atlantic to the Cape Town-Durban range, 11s. one port, 1s. extra each additional port, prompt loading.

A cargo of 7,500 tons of East Texas crude was reported sold during the week for shipment to France, February loading, at 90 cents per barrel. A number of additional cargo inquiries for crude were pending in the American Gulf market, with buyers holding off pending settlement of the East Texas situation. Principal suppliers continued withdrawn from the market, likewise awaiting clarification of the production position in East Texas, and no open market export quotations were available.

Petroleum Exports

Export movement of principal refined petroleum products were well maintained locally during the week, but new business was light, and the market was expected

(Continued on Page 51)

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

EXCLUSIVE OF TAXES

The following quotations are exclusive of the Federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils, which became effective June 21, 1932.

Refinery Gasolines

OKLAHOMA (Group 3)—	Jan. 3		Dec. 27	
*U. S. Motor grades:				
Regular	.03½	.03⅝	.03¼	.03⅝
Premium	.03⅝	.03¾	.03½	.03⅞
Third grade	.02⅝	.02⅞	.02⅞	.03¼
60-62 400 grades:				
Regular	.03⅝	.03⅝	.03½	.03⅞
Premium	.03¾	.03¾	.03¾	.04⅛
Third grade	.02⅞	.03⅛	.03⅛	.03½
64-66 390	.03⅞	.03⅞	.03⅝	.03½
64-66 375	.03⅝	.03⅝	.03⅝	.03⅞
68-70 350	.03⅝	.04	.03⅞	.04⅛
NORTH TEXAS—				
U. S. Motor grades:				
Regular	.03	.03¼	.03¼	.03⅝
Premium	.03¼	.03½	.03⅝	.03⅝
Third grade	.02½	.02¾	.02¾	.03
60-62 400	.02¾	.03	.03	.03¼
64-66 390	.03	.03¼	.03¼	.03⅝
64-66 375	.03¼	.03⅝	.03½	.03¾
64-66 360	.03½	.03¾	.03⅞	.04
†NORTH LOUISIANA—				
U. S. Motor grades:				
Regular	.03⅞	.04⅛	.03⅞	.04⅛
Premium	.04⅛	.04⅜	.04⅛	.04⅜
Third grade	.03½	.03¾	.03½	.03¾
60-62 400	.03¾	.04	.03¾	.04
†ARKANSAS—				
U. S. Motor grades:				
Regular	.03⅞	.04⅛	.03⅞	.04⅛
Premium	.04⅛	.04⅜	.04⅛	.04⅜
Third grade	.03½	.03¾	.03½	.03¾
CHICAGO (Based on Oklahoma Group 3)—				
U. S. Motor grades:				
Regular	.03½	.03⅝	.03½	.03⅝
Premium	.03⅝	.03½	.03⅝	.03⅞
Third grade	.02⅝	.02¾	.02¾	.03
60-62 400	.02¾	.02⅞	.02⅞	.03
64-66 375	.03⅝	.03⅞	.03¾	.03⅞
68-70 360	.04	.04⅛	.04⅛	.04¼
Aviation fighting grade	.04¼	.04½	.04½	.04¾

*Octane Ratings—The following octane ratings apply to the three grades of U. S. Motor gasoline: Regular, 57-65 octane numbers; premium, above 65 octane number; third grade, below 57 octane number.

†For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
U. S. Motor	.05½	.06	.06	.06⅛
60-62 400	.05¾	.06⅛	.06⅛	.06¼
64-66 375	.06	.06¼	.06¼	
68-70 350	.06⅛	.06¼	.06¼	.06½
CALIFORNIA—(domestic movement only)—				
54-58 U. S. Motor	.06	.06¾	.06	.06½
58-60 400	.07	.07½	.07	.07½
EAST COAST—				
U. S. Motor, below 65 octane:				
New York (Bayonne)	.05¾	.06	.06	
Boston	.06		.06	
Baltimore, Md.	.05¾	.06	.06	
Charleston, S. C.	.06		.06	
U. S. Motor, 65 octane and above:				
New York (Bayonne)	.06	.06½	.06¼	.07
Boston	.06¼		.06¼	
Baltimore, Md.	.06	.07	.06	.07
Charleston, S. C.	.06¼		.06¼	.07
GULF COAST (domestic)—				
U. S. Motor, 65 octane and above	.04¾	.05¼	.05½	
U. S. Motor, below 65 octane number	.04	.04½	.04¾	

Naphthas

OKLAHOMA (Group 3)—	Jan. 3		Dec. 27	
50-52 450 (blending)	.02¾	.03	.03	.03¼
PENNSYLVANIA (inland refineries)—				
50-54 430-450 (blending)	.05½	.06	.06	.06⅛
ARKANSAS—				
48-50 450 (blending)	.03¼	.03¾	.03½	.04
CHICAGO (Based on Oklahoma Group 3)—				
50-52 450 (blending)	.02¾		.02¾	.03
Cleaners' naphtha, 56-58 gr., 200 i.b.p.-320 e.p.	.06⅝	.06⅞	.06⅝	.06⅞
Lacquer diluent, 180 i.b.p.-250 e.p.	.07½	.07¾	.07½	.07¾
Lacquer diluent, 140 i.b.p.-200 e.p.	.08	.08¼	.08	.08¼
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.07	.07¼	.07	.07¼
Stoddard solvent, 300 i.b.p.-410 e.p., over 100° flash	.06½	.06¾	.06½	.06¾
Pet. thinner, 290, 300 i.b.p.-415 e.p., over 83° flash	.03⅞	.04⅛	.03⅞	.04⅛
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.05¼	.05½	.05¼	.05½
Petroleum spirits	.03½	.03⅞	.03½	.03⅞

Natural Gasolines

OKLAHOMA (Group 3)—	Jan. 3		Dec. 27	
Grade 18-55	.02⅝		.03	
Grade 26-70	.02¼		.02½	
Grade 30-70	.02⅛		.02⅝	
*Low vapor pressure grades:				
15 lb. v.p. (max.)	.02⅞	.03	.03¼	.03½
11 lb. v.p. (max.)	.03½		.03¾	.04
NORTH TEXAS—				
Grade 18-55	.02½		.03	
Grade 26-70	.02⅛		.02⅝	.02½
Grade 30-70	.02		.02⅝	
*Low vapor pressure grades:				
15 lb. v.p. (max.)	.02¾		.03¼	
11 lb. v.p. (max.)	.03½		.03¾	
NORTH LOUISIANA—				
Grade 26-70	.02¾		.02¾	
CALIFORNIA—				
75-78 375	.05	.05½	.05	.05½

Kerosenes

(All kerosenes water white)

OKLAHOMA (Group 3)—	Jan. 3		Dec. 27	
41-43	.03⅝	.03⅝	.03½	.03⅝
42-44	.03½	.03¾	.03⅝	.03¾
NORTH TEXAS—				
40-41	.03½	.03½	.03¼	.03⅜
41-43	.03¼	.03⅜	.03⅜	.03½
†NORTH LOUISIANA—				
41-43	.03¾		.03¾	
42-44	.04		.04	
†ARKANSAS—				
41-43	.03¾		.03¾	
PENNSYLVANIA (inland refineries)—				
45	.04¾	.04⅞	.04¾	.04⅞
46	.04⅞	.05	.04⅞	.05
47	.04⅞	.05⅛	.04⅞	.05⅛
CHICAGO (Based on Group 3)—				
41-43	.03⅜	.03½	.03½	.03⅝
42-44	.03½	.03⅝	.03½	.03¾
*CALIFORNIA—				
38-40 high burning test	.04	.04¾	.04	.04¾
NEW YORK (Bayonne, N. J.)—				
41-43	.05½	.06	.05½	.06
GULF COAST (domestic)—				
41-43 water white	.04¾		.04¾	.05

*For Pacific Coast consumption.

†For Arkansas, Louisiana and Mississippi delivery.

Furnace Oils and Tractor Fuels

OKLAHOMA (Group 3)—	Jan. 3		Dec. 27	
32-36 straw	.03	.03¼	.03⅛	.03¼
36-38 straw	.03⅛	.03¼	.03¼	.03⅜
38-40 straw	.03¼	.03⅜	.03¼	.03⅜
39-41 prime	.03¼	.03⅜	.03¼	.03⅜
NORTH TEXAS—				
38-40 straw	.03⅛	.03¼	.03⅛	.03¼
†NORTH LOUISIANA—				
36-40	.03¾		.03¾	
†ARKANSAS—				
32-36	.03½	.03¾	.03½	.03¾
CHICAGO (Based on Group 3)—				
32-36 straw	.03⅛	.03¼	.03⅛	.03¼
38-40 straw	.03¼	.03⅜	.03¼	.03⅜
PENNSYLVANIA (inland refineries)—				
40-41 prime white	.03⅜	.04	.03¾	.04
NEW YORK (Bayonne, N. J.)—				
32-36	.04		.04	
36-40	.05		.05	
21 (industrial)	.03½		.03½	

Above prices are for distillate oils of zero cold test under 190° F. flash and good odor.

†For Arkansas, Louisiana and Mississippi delivery.

Gas Oil, Diesel Oil and Fuel Oil

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

OKLAHOMA (Group 3)—	Jan. 3		Dec. 27	
32-36 (G.O.) cracking stock	.02	.02⅛	.02	.02⅛
U.G.I. (G.O.)	.02	.02⅛	.02	.02⅛
32-36 zero to 15 (G.O.) high flash	.02⅞	.03⅛	.02⅞	.03⅛
28-30, zero to 10	1.00	1.05	1.00	1.05
26-30, zero to 10	.85	.90	.85	.90
24-26	.60	.65	.60	.65
20-22	.50	.55	.50	.55
Below 16	.40	.45	.40	.45
NORTH TEXAS—				
32-36 (G.O.) industrial	.01⅞	.02	.01⅞	.02
22-26	.50	.55	.50	.55
Below 20	.45	.50	.45	.50
NORTH LOUISIANA—				
32-36 (G.O.) zero	.03¼		.03¼	
14-16	.45		.45	
†ARKANSAS—				
30-32 (G.O.) zero high flash	.03¼		.03¼	
14-16	.45		.45	
CHICAGO (Based on Group 3)—				
32-36 (G.O.) industrial	.02¼	.02½	.02¼	.02½
28-30 (zero)	1.10		1.10	
22-26	.75	.80	.75	.80
18-22	.65	.70	.65	.70
Below 18	.60	.65	.60	.65
PENNSYLVANIA (inland refineries)—				
36-40	.03¼	.03½	.03¼	.03½

Note: Fuel oils of more than 40 cold test generally 5 to 10 cents per barrel less in all areas than shown in above tables.

†For Arkansas, Louisiana and Mississippi delivery.

CALIFORNIA—				
30-34 (G.O.) per bbl.	.85	.95	.85	.95
27 plus Diesel	.85	.95	.85	.95
15-19 bunker (at tidewater)	.55	.65	.55	.65
15-19 (cargo lots)	.50	.60	.50	.60
15-19 (tank cars)	.40	.55	.40	.55
GULF COAST—				
28-30 (G.O.)	.03½	.03¾	.03½	.03¾
28-30 Diesel	1.50	1.65	1.50	1.65
Bunker C (bulk cargoes)	.50		.50	
Bunker C (bunkers)	.60		.60	
NEW YORK (Bayonne, N. J.)—				
28 plus (G.O.)	.03¾	.04	.04	
*28-30 Diesel	1.65		1.65	
26-30 Diesel (tank cars)	.04		.04	
†Bunker C	.75		.75	

*Lighterage 6½ cents per barrel.

†Lighterage 5 cents per barrel.

Petroleum Coke*

Prices per ton f.o.b. refineries in Chicago area.

Breeze (screenings)	5.50	5.50
Still runs	6.50	6.50
Lump and egg	7.50	7.50

*Refineries will absorb freight to 80 cents a ton.

Neutral Oils

(Viscosity at 100° F. and color)

OKLAHOMA (Group 3)— Zero to 10 Cold Test:	Jan. 3		Dec. 27	
150-3	.06¼	.06½	.06¼	.06½
180-3	.07½	.07¾	.07½	.07¾
180-4	.07	.07¼	.07	.07¼
200-3	.08¼	.08½	.08¼	.08½
200-4	.08	.08¼	.08	.08¼
240-3	.09¾	.10	.09¾	.10
240-4	.09½	.09½	.09½	.09½
280-3	.11½	.11½	.11½	.11½
280-4	.10½	.10½	.10¼	.10½
300-3½	.11¾	.12	.11¾	.12
350-3½	.12¼	.12½	.12¼	.12½
400-4	.12¾	.13	.12¾	.13
500-4½	.13	.13½	.13	.13½
100-2 paraffin oil	.04¼	.04½	.04¼	.04½
15-30 Cold Test:				
200-3	.07½	.07¾	.07½	.07¾
200-4	.07¼	.07½	.07¼	.07½
240-3	.09¼	.09½	.09¼	.09½
240-4	.08¾	.09	.08¾	.09
280-3	.10¾	.11	.10¾	.11
280-4	.09¾	.10	.09¾	.10

PENNSYLVANIA—				
150 vis., No. 3, 400-405:				
Zero pour test	.11¾	.12	.11¾	.12
10 pour test	.11¼	.11¾	.11¼	.11¾
15 pour test	.10	.10½	.10	.10½
25 pour test	.09	.09½	.09	.09½
180 vis., No. 3, 25 pour test	.12	.12½	.12	.12½
200 vis., No. 3:				
Zero pour test	.18	.19	.18	.19
10 pour test	.17	.18	.17	.18
15 pour test	.16		.16	
25 pour test	.13½	.14	.13½	.14
30 pour test	.13		.13	
GULF COAST—				
Pale Oils:				
100-2-2½	.04¾	.05	.04¾	.05
200-3	.06	.06¼	.06	.06¼
300-3	.07		.07	
500-3½	.08¾	.09	.08¾	.09
750-3½	.09¾	.10	.09¾	.10
1,200-3½	.11¾	.12	.11¾	.12
2,000-4	.12½	.13	.12½	.13
Red Oils:				
200-5-6	.05		.05	
300-5-6	.05¾	.06	.05¾	.06
500-5-6	.07¾	.08	.07¾	.08
1,200-5-6	.10¾	.11	.10¾	.11
2,000-6 plus	.12	.12½	.12	.12½
CALIFORNIA—				
Pale Oils:				
100-2½-3	.09	.10	.09	.10
200-2½-3	.10	.11	.10	.11
300-3-3½	.11	.11½	.11	.11½
350-3-4	.11½	.11¾	.11½	.11¾
400-3-4	.11¾	.12	.11¾	.12
450-3-4	.12	.12¼	.12	.12¼
550-3-4	.12¼	.12¾	.12	.12¼
Red Oils:				
200-4-5	.08¾	.09¼	.08¾	.09¼
300-5-6	.10	.10½	.10	.10½
350-5-6	.10½	.11	.10½	.11
400-5-6	.11	.11½	.11	.11½
450-5-6	.11½	.11¾	.11½	.11¾
500-5-6	.11¾	.12	.11¾	.12
600-5-6½	.12	.12¼	.12	.12¼
700-6½ plus	.12¼	.12½	.12¼	.12½
750-6½ plus	.12½	.12¾	.12½	.12¾
900-6½ plus	.13	.14½	.13	.14½

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	**Jan. 3**		**Dec. 27**	
630 light green	.07¾	.08	.07¾	.08
600 light green S.R.	.05	.06	.05	.06
600 dark green S.R.	.04	.04½	.04	.04½
Bright Stocks:				
190-200 D	.17½		.17½	
150-160 D, 0-10	.15½		.15½	
150-160 D, 10-25	.15		.15	
150-160 D, 25-40	.14½		.14½	
150-160 E	.14½		.14½	
PENNSYLVANIA—				
600 S.R.	.09½	.10½	.09½	.10½
650 S.R.	.12	.13	.12	.13
600 Pennsylvania flash	.13½	.14	.13½	.14
630 D filtered	.18½	.19	.18½	.19
600 E filtered	.13½	.14½	.13½	.14½
Pennsylvania Grade bright stock:				
Bright Stock, No. 8 color, 145-50 vis.				
210-540-550 flash:				
10 pour test	.21	.22½	.21	.22½
15 pour test	.20	.21	.20	.21
25 pour test	.18	.19	.18	.19

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—	**Jan. 3**		**Dec. 27**	
124-126 white crude scale	.01⅞	.02	.01⅞	.02
PENNSYLVANIA—				
122-124	.02⅛		.02⅛	
124-126	.02⅛	.02¼	.02⅛	.02¼
NEW YORK (Bayonne, N. J.)—				
120-122	.02⅝		.02⅝	
125-127	.02¾		.02¾	
130-132	.03		.03	
133-135	.04		.04	
135-137	.04⅛		.04⅛	
Petrolatum in barrels in carload lots:				
Dark green	.01¾		.01¾	
Amber	.02⅛		.02⅛	
Extra amber	.02½		.02½	
Cream	.04⅝		.04⅝	
Lily white	.05½		.05½	
Snow white	.06½		.06½	

Export Prices

GASOLINE

GULF COAST—	**Jan. 3**		**Jan. 27**	
U. S. Motor	.03¾		.04	
60-62 400	.04		.04½	
61-63 390	.04		.04½	
64-66 375	.04		.04½	
LOS ANGELES, CALIF.—				
U. S. Motor, 53-55 437 e.p.	.03¾	.04¼	.03¾	.04¼
U. S. Motor, 65 octane num.	.04¾	.05	.04¾	.05
U. S. Motor, 67 octane num.	.05¼		.05¼	
U. S. Motor, 69 octane num.	.05½		.05½	
58-60 400 endpoint gasoline	.04¼	.05	.04¼	.05

KEROSENE

GULF COAST—				
41-43 prime white	.04¼		.04¼	
41 water white	.04	.04½	.04⅜	.04½
LOS ANGELES, CALIF.—				
41-43 water white	.03¾	.04¼	.03¾	.04¼

LUBRICANTS

NEW YORK (f.a.s. in bbls.)—		
600 filtered	.22	.22
600 Warren E	.19	.19
600 S.R. unfiltered	.16	.16
650 S.R. unfiltered	.18	.18
600 flash S.R.	.19	.19
630 flash S.R.	.24	.24
Bright stock, No. 8 color	.24	.24
Bright stock, No. 6½ color, dil.	.23½	.23½

NEUTRALS

NEW YORK—Pale Engine Oil, Bulk (vis. at 100)—				
230-3¾	.09¾	.10	.10¼	
180-3½	.09½	.09½	.09¾	
100-2¼	.05	.05	.05½	
Red Engine Oil, Bulk (vis. at 100):				
300-6½	.09½	.09½	.09¾	
250-6	.08¾	.09	.09	.09¼
200-6	.08¼		.08½	

Crude Oil Prices

Oklahoma, Kansas, North and East Central Texas

East Texas (Dec. 15, 1932) .....$ .75
Corsicana, heavy (Jan. 1, 1933)* ..... .50
Other fields .....See gravity table

East Texas posted by Sinclair Prairie Oil Marketing Co., Magnolia Petroleum Co. (Dec. 16), Panola Pipe Line Co. (Dec. 17), The Texas Company, Shell Petroleum Corp. (Dec. 17), and Gulf Pipe Line Co.
Humble Oil & Refining Co., December 15, 1932; posted by Tidal Refining Co., December 16, 1932.
*Magnolia Petroleum Co.

West Texas

Iatan and Westbrook..Same as North Texas
Crane, Upton, Crockett, Howard, Glasscock, Mitchell, Ector, Winkler and Pecos counties.....See note below
Lea County, New Mexico .....
.....(See Rocky Mountain States)
Toborg, Pecos County* .....$ .65

Note—Effective December 15, 1932, Magnolia Petroleum Co., Shell Petroleum Corp., December 17, 1932, 65 cents; effective December 16, 1932, Humble Oil & Refining Co., Gulf Petroleum Co. (Dec. 19), The Texas Company (Dec. 15), and Stanolind Oil & Gas Co., 50 cents. January 1, 1933, Magnolia Petroleum Co., 50 cents.
*Shell Petroleum Corp. effective October 15, 1932.

Texas Panhandle

Gray County, Wheeler County and Carson-Hutchinson Counties....See gravity table

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers .....
.....See gravity table
Jennings, La. (Dec. 19, 1932)* .....$ .60
Lockport, La.....Below 25 gravity 68 cents, differential 2 cents per degree beginning with 25-25.9 at 70 cents with 40 gravity and over at $1.
Refugio, light .....See gravity table
Refugio, heavy (Dec. 15, 1932)‡ ..... .65
Markham (Oct. 15, 1932)§ .....
.....See Gulf Coast gravity schedule
High Island (Apr. 11, 1932)¶ .....
.....See Gulf Coast gravity schedule

*Gulf Refining Co. ‡Humble Oil & Refining Co. §The Texas Company. ¶Yount Lee Pipe Line Co.

South Central and Southwest Texas

Darst Creek .....See note below
Luling (Jan. 1, 1933)* .....$ .50
Mirando (Dec. 16, 1932)† ..... .55
Mirando (Jan. 1, 1933)* ..... .55
Pettus (Dec. 15, 1932)† ..... .50
Salt Flat .....See note below
Thrall‡ .....
Lytton Springs (Lockhart) (Jan. 1, 1933)* ..... .70
Dobrowolski§ .....
Same as Mid-Continent gravity scale up to and including 38-38.9°
Somerset§ .....
Same as Mid-Continent gravity scale up to and including 38-38.9°

Note—Darst Creek, effective December 15, 1932, Magnolia Petroleum Co., The Texas Company, Gulf Pipe Line Co. and Humble Oil & Refining Co., 60 cents; Salt Flat, effective December 15, 1932, Magnolia Petroleum Co., 75 cents; effective December 16, 1932, Humble Oil & Refining Co., 60 cents; Shell Petroleum Corp., December 17, 1932, 60 cents; Humble Oil & Refining Co. posted 80 cents for Mirando crude oil on April 11, 1932.
*Posted by Magnolia Petroleum Co.
†Humble Oil & Refining Co.
‡Thrall prices same as North Central Texas, less 19¾ cents per cwt. freight.
§Pioneer Oil & Refining Co.
¶Greyburg Oil & Refining Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades) .....
.....See note below
Urania, La. (Dec. 21, 1932) .....$ .55
East El Dorado, Ark. (Dec. 16, 1932).. .65
Stephens, Ark., below 29° (Apr. 12, 1932) .61
Stephens, Ark., 29° and above (Apr. 12, 1932) .....
..... .64
Sabine and DeSoto....Below 25 gravity 42 cents, with 2-cent differential per degree making 40 gravity and above at 74 cents.
Other fields .....See gravity table

Note—Smackover, all grades, effective December 16, 1932, Magnolia Petroleum Co., Louisiana Oil & Refining Co., The Texas Company (Dec. 15), Gulf Refining Co. of Louisiana, 50 cents; effective December 16, 1932, Standard Oil Co. of Louisiana, 30 cents. December 30, Root Refineries posted 40 cents for all grades of Smackover and East El Dorado crudes; Leon Oil & Refining Co. and McMillan Oil Products Co., 40 cents. Urania posted by H. L. Hunt, Inc., and Louisiana Oil & Refining Co. East El Dorado posted by Magnolia Petroleum Co. and Gulf Refining Co. Stephens, Ark., posted by Louisiana Oil & Refining Co. and Atlantic Oil Producing Co., 50 cents.

Rocky Mountain States

OHIO OIL CO.-STANOLIND OIL & GAS CO.
Iles, light (Dec. 16, 1932) .....$ .65
Iles, heavy (Dec. 16, 1932) ..... .50
Fort Collins, Wellington and Greasewood, Colo., are on contract basis.
Florence (Dec. 15, 1932) ..... .57
Dutton Creek, Wyo. (Dec. 16, 1932) .... .59
Rock Creek, Wyo. (Dec. 16, 1932) ..... .67
Frannie, light (Dec. 16, 1932) ..... .51
Frannie, heavy (Dec. 16, 1932) ..... .41
Salt Creek .....
See Stanolind Mid-Continent price schedule
LaBarge .....Mid-Continent gravity scale
Big Muddy (Dec. 16, 1932) ..... .75
Grass Creek (Dec. 16, 1932) ..... .87
Grass Creek heavy (Dec. 15, 1932) .... .45
Elk Basin (Dec. 16, 1932) ..... .87
Lance Creek (Dec. 16, 1932) ..... .92
Poison Spider (Mar. 5, 1931) ..... .70
Hudson (June 2, 1931) ..... .65
Lander (Mar. 5, 1931) ..... .40

(Continued on Page 31)

Crude Oil Gravity Table

Degree gravity—	Kansas, Oklahoma, North Texas, East Central Texas and Central Texas 1	North Louisiana and Arkansas 2	Hutchinson, Carson and Moore Counties, Texas 3	Hutchinson, Carson and Moore Counties 4	Gray County, Texas 5	Gray County, Texas 6	Gulf Coast, Texas and Louisiana 7	Cameron Meadows, La. 8	Salt Creek and LaBarge, Wyo. 9
Below 20	....	....	....	....	....	....	$.58	$.48	....
20-20.9	....	....	....	....	....	....	.60	.50	....
21-21.9	....	....	....	....	....	....	.62	.52	....
22-22.9	....	....	....	....	....	....	.64	.54	....
23-23.9	....	....	....	....	....	....	.66	.56	....
24-24.9	....	....	....	....	....	....	.68	.58	....
Below 25	$.45	$.39	....	....	....	....	....	....	....
25-25.9	.47	.41	....	....	....	....	.70	.60	....
26-26.9	.49	.43	....	....	....	....	.72	.62	....
27-27.9	.51	.45	....	....	....	....	.74	.64	....
28-28.9	.53	.47	....	....	....	....	.76	.66	....
Below 29	....	....	....	$.26	....	$.36	....	....	$.53
29-29.9	.55	.49	....	.28	....	.38	.78	.68	.55
30-30.9	.57	.51	....	.30	....	.40	.80	.70	.57
31-31.9	.59	.53	....	.32	....	.42	.82	.72	.59
32-32.9	.61	.55	....	.34	....	.44	.84	.74	.61
33-33.9	.63	.57	....	.36	....	.46	.86	.76	.63
34-34.9	.65	.59	$.51	.38	$.56	.48	.88	.78	.65
35-35.9	.67	.61	.53	.40	.58	.50	....	....	.67
36-36.9	.69	.63	.55	.42	.60	.52	....	....	.69
37-37.9	.71	.65	.57	.44	.62	.54	....	....	.71
38-38.9	.73	.67	.59	.46	.64	.56	....	....	.73
39-39.9	.75	.69	.61	.48	.66	.58	....	....	.75
40 and over	.77	.71	.63	.50	.68	.60	....	....	.77

Column 1—Effective December 15, in Kansas, Oklahoma, North Texas, East Central Texas and Central Texas by Sinclair Prairie Oil Marketing Co.; The Texas Company, effective December 20; in Kansas, Oklahoma and North Texas by Continental Oil Co., effective December 15; in Kansas and Oklahoma by Phillex Oil Co., Empire Pipe Line Co., Shell Petroleum Corp., Pure Oil Co., December 15; Gypsy Oil Co., December 19; National Refining Co., December 16; in Oklahoma by Champlin Refining Co., effective December 16; in North and Central Texas by the Gulf Pipe Line Co., December 17; in Kansas by the Skelly Oil Co. and White Eagle Oil Corp., Kansas, Oklahoma and North Central Texas by the Stanolind Crude Oil Purchasing Co., December 16; in Kansas and Oklahoma by Carter Oil Co., December 16; in East Central, Central and North Texas by the Humble Oil & Refining Co., December 15. Effective December 16 in Kansas, Kanotex Refining Co. posted 28-28.9 degrees, 53 cents, with 2 cents added for each degree upward to 40 degrees and over. Eldorado Refining Co. adopted Stanolind prices in Kansas, effective December 16, and Magnolia Petroleum Co. adopted the schedule in Oklahoma, North Texas, East Central Texas and Central Texas on January 1, 1933.

Column 2—Effective December 16, by The Texas Company, Louisiana Oil Refining Co. and Standard Oil Co. of Louisiana, as per schedule above and Gulf Refining Co., December 17. Magnolia Petroleum Co., January 1, 1933.

Column 3—Effective December 15, Humble Oil & Refining Co. and Continental Oil Co.; December 19, Gulf Production Co.; January 1, 1933, Magnolia Petroleum Co.

Column 4—Phillex Oil Co., December 16.

Column 5—Effective December 15, Humble Oil & Refining Co., Continental Oil Co. and H. F. Wilcox Oil & Gas Co.

Column 6—Phillex Oil Co., December 16.

Column 7—Effective December 15, by Humble Oil & Refining Co. in Goose Creek, Hull, Liberty, Orange, Pierce Junction, Mykawa, Moss Bluff, Raccoon Bend, Barbers Hill, Sour Lake, Spindletop, Sugarland, West Columbia, Humble, Rabbs Ridge and Refugio light oil. Sinclair Prairie Oil Marketing Co. in Boling, Barbers Hill and West Columbia, December 15. Magnolia Petroleum Co. in Lockport and Iowa, Louisiana, January 1, 1933. Conroe posted by Humble Oil & Refining Co., December 15, as follows: 35-35.9 gravity, 80 cents, with 2-cent differential per degree, making 40 gravity oil and above 90 cents.

Column 8—Magnolia Petroleum Co., effective January 1.

Column 9—Stanolind Oil & Gas Co., December 16.

(California Crude Oil Prices on Page 31)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

January 3, 1933

Taxes

The gasoline quotations given in the following tables include the 1-cent Federal tax as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third or competitive grade is generally available at 1.5 or more cents per gallon under the service station price for the regular grade. Ethyl Gasolines are sold 2 cents above the service station price for the regular grade.

Standard Oil Co. (Indiana)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Chicago	14.1	14.1	4.0	10.0
Decatur, Ill.	16.6	16.6	4.0	10.1
E. St. Louis	17.9	14.9	4.0	9.3
Joliet	16.0	15.6	4.0	8.6
Peoria	16.6	15.6	4.0	10.1
Quincy	16.4	16.4	4.0	9.9
Davenport, Ia.	16.7	16.7	4.0	10.4
Des Moines	16.7	16.7	4.0	8.0
Mason City	16.7	16.7	4.0	9.0
Sioux City	16.3	16.3	4.0	10.0
Duluth, Minn.	17.7	17.7	4.0	11.0
Mankato	17.3	17.3	4.0	8.1
Minneapolis	15.4	15.4	4.0	11.0
LaCrosse, Wis.	18.4	18.4	5.0	11.1
Green Bay	17.8	17.8	5.0	10.5
Milwaukee	16.3	16.3	5.0	10.0
Madison	17.5	17.5	5.0	10.2
Detroit, Mich.	15.0	15.0	4.0	9.0
Grand Rapids	16.5	16.5	4.0	10.3
Saginaw	16.8	16.8	4.0	10.8
Evansville, Ind.	16.2	16.2	5.0	†13.9
Indianapolis	17.4	17.4	5.0	†14.1
South Bend	17.7	17.7	5.0	†14.4
Fargo, N. D.	19.1	19.1	4.0	13.0
Huron, S. D.	18.5	18.5	5.0	11.3
Sioux Falls	18.0	18.0	5.0	20.0
K. C., Mo.*	14.1	14.1	4.0	8.7
Springfield*	16.0	16.0	4.0	8.0
St. Louis	11.5	11.0	4.0	9.4
St. Joseph*	13.0	9 9	4.0	7.5
Wichita, Kans.	14.9	14.9	4.0	7.0
Bartlesville, Ok.	14 5	17.0	5.0	8.0

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

†Includes 4-cent tax. Buyers of kerosene not used as motor fuel can secure refund of tax.

Effective November 4—New dump discount applicable on all grades of gasoline sold from tank wagon. Any tank wagon customer buying 25 gallons or more at one time will be given 1-cent discount per gallon off tank wagon price at time of delivery. Customers not under contract receive no other discount.

Effective January 1—Discounts on Q.D.A. on 500 gallons or more per month throughout territory; Red Crown Ethyl Gasoline, 2 cents off tank wagon price; Red Crown gasoline, 2½ cents off tank wagon price; Stanolind Blue gasoline, 1 cent off tank wagon price. On deliveries of 75,000 gallons or more each classification allowed 1 cent additional discount.

Discounts on resellers authorized agent's agreement: Same amounts as above except made off service station price instead of tank wagon price.

Stanolind Furnace Oil in Chicago

Effective November 1, 1932, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), 100 gallons or more, 7 cents; No. 2 (30-34 stw. zero), 150 gallons or more, 6½ cents; No. 3 (32-36 zero), 400 gallons or more 5.75 cents; No. 4 (13-16 zero), 400 gallons or more, 4.75 cents. Viscosity of No. 4, 90-115 at 100° F.

Fuel Oils

Chicago Oil Heat Institute Prices

Spot market prices on 350 gallons or over deliveries, and top prices on contracts, respectively: 38-40, 7 and 8 cents; 32-36 light, 4¾ and 7¾ cents; 32-36 dark, 6½ and 7½ cents; 28-30, 5¾ and 6¾ cents; 24-26, 5 and 6 cents; 15-22, 4¾ and 5¾ cents. On deliveries of less than 350 gallons the spot price is one-half cent higher.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Dallas, Tex.	13.5	16.0	5.0	8.0
Fort Worth	13.5	16.0	5.0	8.0
Houston	13.5	16.0	5.0	8.0
San Antonio	13.5	16.0	5.0	8.0
El Paso	15.0	17.0	5.0	10.0
Texarkana	*15.0	15.0	5.0	†11.0
Muskogee, Okla.	12.5	15.0	5.0	8.0
Okla. City	13.5	16.0	5.0	8.0
Tulsa	13.5	16.0	5.0	8.0
Ft. Smith, Ark.	*15.0	15.0	5.0	†10.0
Little Rock	15.5	15.5	7.0	†10.0

*Less 2½ cents to dealers. †Less 2 cents to dealers.

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Atlanta, Ga.	19.0	19.0	7.0	12.0
Augusta	20.0	20.0	7.0	11.0
Macon	20.0	20.0	7.0	12.0
Savannah	20.0	20.0	7.0	12.5
Birm'ham, Ala.	22.0	22.0	8.0	11.0
Mobile	20.0	20.0	8.0	10.0
Montgomery	23.0	23.0	8.0	13.5
Jackson, Miss.	18.0	18.0	7.0	10.0
Vicksburg	20.0	20.0	7.0	10.5
Jack'ville, Fla.	20.0	20.0	8.0	12.0
Miami	21.0	21.0	8.0	12.5
Pensacola	19.0	19.0	8.0	12 0
Tampa	18.0	18.0	8.0	13.0
Lexington, Ky.	18.5	18.5	6.0	10 5
Covington	18.0	18.0	6.0	10.5
Louisville	17.0	17.0	6.0	9.0
Paducah	19.0	19.0	6.0	8.0

A third grade "Kyso Green" is sold at a price generally 2 cents below the price on the regular grade.

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline. To Pensacola, Montgomery and Birmingham state taxes add 1-cent tax. To Mobile state tax add 1-cent city tax. Dealers receive discount of 3 cents off tank wagon price throughout territory.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Denver, Colo.	15.0	18 0	5.0	12.5
Pueblo	15.0	18.0	5.0	12.5
Grand Jnctn.	19.0	22.0	5.0	14.5
Casper, Wyo.	16.0	19.0	5.0	10 0
Cheyenne	16.0	19.0	5.0	11.5
Butte, Mont.	20.0	23.0	6.0	17.0
Billings	22.0	25.0	6.0	16.5
Great Falls	22.0	25.0	6.0	17.0
Helena	22.0	25.0	6.0	17 0
Salt Lake, Utah	17.0	20.0	5.0	16.0
Albu'que, N. M.	17.0	20.0	*7.0	14 0
Boise, Idaho	20.5	23.5	6.0	15 0
Twin Falls	20.5	23.5	6.0	15 0

*One-cent city tax.

Central South District

STANDARD OIL CO. (LOUISIANA)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
N. Orleans, La.	16.5	16.5	*7.0	†11.0
Baton Rouge	16.0	16.0	6.0	†11.0
Alexandria	14.0	14.0	7.0	†8.5
Lafayette	16.0	16.0	7.0	†10 0
Lake Charles	16.0	16.0	7.0	†11.0
Shreveport	15.0	15.0	6.0	†11.0
Knoxville, Tenn.	19.5	19.5	8.0	11.5
Memphis	18.5	18.5	8.0	9.0
Chattanooga	17.5	17.5	8.0	11 0
Nashville	18.5	18.5	8.0	11.0
Bristol	19.0	19.0	8.0	13.0
Lt. Rock, Ark.	16.5	16.5	7.0	9.0

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

Two-cent discount off kerosene tank wagon price and 2½ cents off gasoline tank wagon price to dealer and commercial accounts.

Ohio

STANDARD OIL CO. (OHIO)*

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Ohio points	13.5	14.0	5.0	*12.0

*Two cents off on gasoline tank wagon to dealers and commercial accounts; 2½ cents off tank wagon on kerosene to dealers.

Nebraska

STANDARD OIL CO. (NEBRASKA)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Omaha	17.9	18.9	5.0	10.25
McCook	19.0	19.0	5.0	11.75
Norfolk	18.75	18.75	5.0	10.75
N. Platte	19.0	19.5	5.0	11.5
Scottsbluff	19.5	20.0	5.0	11.25

Note—Dealers' discount allowed as follows: Red Crown Ethyl, 3 cents off station price; Red Crown, 2½ cents off normal service station price; Nebraska Blue (third grade), 1 cent off normal service station price.

New York and Part of New England District

STANDARD OIL CO. (NEW YORK)*

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Albany, N. Y.	16.0	17.0	4.0	9.0
New York	14.5	14.5	4.0	9.5
Buffalo	16.0	17.0	4.0	10.0
Rochester	16.5	17.5	4.0	10.0
Syracuse	15.0	16.0	4.0	10.5
Boston, Mass.	15.0	16.5	4.0	8.0
Augusta, Me.	18.5	19.5	4.0	9.0
Manch'tr, N. H.	18.5	19.5	5.0	8.0
Burlington, Vt.	18.0	19.0	5.0	8.5

*Discount schedule to commercial accounts are as follows: At service stations, 1 cent per gallon; tank wagon deliveries up to 20,000 gallons monthly, 2 cents per gallon; 20,000 to 100,000 gallons, 2½ cents; 100,000 to 300,000 gallons, 3 cents; 300,000 gallons and up, 3½ cents.

Atlantic Coast District

STANDARD OIL CO. (NEW JERSEY)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Atl'tic City, N.J.	15.0	16.0	4.0	11.2
Newark	14.3	15.3	4.0	8.5
Annapolis, Md.	15.6	16.6	5.0	10.0
Baltimore	15.0	16.0	5.0	8.0
Cumberland	16.5	17.5	5.0	11.7
Wash'g'n, D. C.	12.2	13.2	3.0	10.0
Danville, Va.	17.7	18.7	6.0	11.9
Norfolk	16.1	17.1	6.0	10.3
Petersburg	17.2	18.2	6.0	11.4
Richmond	16.5	17.5	6.0	10.7
Roanoke	17.7	18.7	6.0	11.9
Chares'n, W.Va.	16.4	17.4	5.0	11.6
Parkersburg	15.0	16.0	5.0	10.2
Wheeling	16.0	17.0	5.0	11.2
Charlotte, N. C.	19.2	20.2	7.0	12.5
Hickory	19.5	20.5	7.0	12.7
Mt. Airy	19.6	20.6	7.0	12.8
Raleigh	19.1	20.1	7.0	12.3
Salisbury	19.4	20.4	7.0	12.6
Charleston, S.C.	17.1	18.1	7.0	10.3
Columbia	19.0	20.0	7.0	12.2
Spartanburg	16.5	17.5	7.0	12.5

Two cents per gallon discount off tank wagon price of gasoline to dealers except Washington, D. C., and Baltimore, Md., where discount is 3 cents. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey.

Naphtha

	Tank Wagon	Tank Car
Oleum spirits	10.7	6.23
V.M.&P. naphtha	12.7	7.23
Cleaners' naphtha	15.2	9.23
Stanisol	15.2	9.23

Tank wagon prices f.o.b. Chicago January 6, 1932. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Canada

IMPERIAL OIL, LTD.

Imperial 3-Star Gasoline

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Hamilton, Ont.	24.0	27.0	6.0	16.5
Toronto, Ont.	24.0	27.0	6.0	16.0
Brandon, Man.	30.5	34.0	7.0	20.5
Winnipeg, Man.	27.5	31.0	7.0	17.5
Regina, Sask.	30.5	34.5	8.0	21.5
Saskatoon, Sask.	32.5	36.5	8.0	23.5
Edmonton, Alta.	30.5	34.0	8.0	22.5
Calgary, Alta.	27.0	30.5	8.0	19.0
Vancouver, B.C.	28 0	31.0	7.0	24.0
Montreal, Que.	23.5	26.5	6.0	15.0
St. Johns, N.B.	27.0	31.0	7.0	22.0
Halifax, N.S.	26.0	30.0	6.0	22.0

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline: Tank truck†	Gasoline: Posted retail	Gasoline: Incl'ds tax	Kero. tank wagon
Fresno	19.0	18 0	4.0	17.0
San Francisco	19.0	18.0	4.0	15.5
Los Angeles	18.5	17.5	4.0	17.5
Reno, Nev.	23.0	22.0	5 0	19.0
Portland, Ore.	16.4	15.4	5.0	16.5
Seattle, Wash.	17.4	16.4	6.0	16.5
Tacoma	17.4	16.4	6.0	16.5
Spokane	20.9	19.9	6.0	20.5
Phoenix, Ariz.	19.5	21.5	6.0	20.5

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

Pennsylvania-Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax	Kero. tank wagon
Pittsburgh, Pa.	16.0	17.0	4.0	10.0
Philadelphia	15.0	16.0	4.0	10.0
Scranton	15.5	16.5	4.0	10.0
Allentown	15.5	16.5	4.0	10.0
Altoona	16.0	17.0	4.0	10.0
Erie	16.0	17.0	4.0	10.0
Dover, Del.	16.5	17.5	4.0	10.0
Wilmington	16.5	17.5	4.0	9.0
Spring'd, Mass.	16.5	17.5	4.0	8.0
Worcester	16.5	17.5	4.0	8.0
Boston	15.5	16.5	4.0	8.0
Providence, R.I.	13.5	14.5	3.0	8.0
Hartford, Conn.	14.5	15.5	3.0	8.0
New Haven	14.5	15 5	3.0	8.0

Discount schedule effective November 1, 1932. In Delaware and Pennsylvania, 2 cents off station price on purchases of 2,000 gallons or more per month, in remainder of territory 1 cent. Wholesale discount 2½ cents per gallon on monthly deliveries of 20,000 to 100,000 gallons, 3 cents on 100,000 to 300,000 and 3½ cents on more than 300,000 gallons.

TANK WAGON CHANGES

Standard Oil Co. of Kentucky, effective December 24, reduced gasoline tank wagon and service station prices 1 cent at Jackson, Miss.; effective December 22, advanced gasoline tank wagon and service station prices 2 cents at Birmingham, Ala.; effective December 22, reduced gasoline tank wagon and service station prices 1 cent at Atlanta, Ga.

Standard Stations, Inc. (Standard Oil Co. of California), effective December 29, reduced retail gasoline price one-half cent at Fresno, Calif.; effective December 29, Standard Oil Co. of California reduced posted wholesale (tank wagon) price at Fresno, one-half cent.

Standard Oil Co. of Ohio, effective December 31, reduced gasoline tank wagon and service station prices 2 cents in Ohio.

Standard Oil Co. of New Jersey, effective December 24, reduced gasoline tank wagon and service station prices 1.3 cents at Spartanburg, S. C.; effective December 26, reduced prices at same point 1 cent per gallon; effective December 27, reduced prices at same point .5 cents per gallon.

Standard Oil Co. of Indiana, effective December 24, reduced gasoline service station prices 1 cent at St. Joseph, Mo.

Standard Oil Co. (Indiana) reduced the gasoline tank wagon and station prices 1 cent throughout practically its entire territory on January 3.

Standard Oil Co. of Ohio reduced the gasoline tank wagon and station prices 1 cent January 3.

Magnolia Petroleum Co. reduced the gasoline tank wagon and station prices 1 cent on January 1.

CRUDE OIL PRICE CHANGES

Effective January 1, 1933, the Magnolia Petroleum Co. adopted the price schedule of other leading buyers in Oklahoma, North Texas, Central Texas and East Central Texas, beginning at below 25 degrees, 45 cents, with 2 cents added for each degree upward to 40 degrees and above, at 77 cents; adopted the schedules of other leading buyers in the Louisiana and Arkansas fields in which it purchases on a gravity basis: Pine Island, Haynesville, Bull Bayou, Cotton Valley, in Louisiana, and El Dorado and Rainbow in Arkansas, beginning with below 29 degrees at 39 cents, with 2 cents added for each degree upward to 40 degrees and above at 71 cents. It adopted other buyers' prices in the Gulf Coast Field (Lockport and Iowa, Louisiana); reduced Cameron Meadows, Louisiana, prices as follows: Below 20 degrees, 48 cents, with 2 cents added for each degree upward to 34 degrees and above at 78 cents; Gray County, Texas, below 35 degrees, 56 cents, with 2 cents added for each degree upward to 40 degrees and above at 68 cents; Hutchinson and Carson Counties, Texas, below 35 degrees, 51 cents, with 2 cents added for each degree upward to 40 degrees and above at 63 cents. Posted 50 cents per barrel in Winkler, Crane, Upton, Howard, Glasscock and Mitchell Counties in West Texas; posted 55 cents for Mirando, Texas; 50 cents in Luling and Corsicana for heavy,

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NEWS FOR SALES DEPARTMENTS

Appoint Saybolt Director of Standard of New Jersey

NEW YORK, Jan. 2.—Succeeding J. A. Van Wynen, who retired recently, J. W. Saybolt, manager of the lubrication division of the sales dpartment of the Standard Oil Co. of New Jersey, has been elected a director of the Standard Oil Co. of Pennsylvania and of the Standard Oil Co. of New Jersey (Delaware).

Mr. Saybolt's double election caps the busy career of one of the most popular figures at 26 Broadway. The son of George M. Saybolt, internationally known

J. W. SAYBOLT

authority on petroleum testing and formerly head of the Standard Inspection Laboratory, J. W. Saybolt literally entered the petroleum industry in his boyhood, when he worked in his father's laboratory during his summer vacation.

In 1901 he started working at the Bayonne laboratory and six years later, after an intensive training course which included firing stills, running stills, agitator treating, pipe-fitting and boiler-making, moved to the Parkersburg, W. Va., office as a member of the marketing organization there. In 1910 he was transferred to Baltimore as lubrication sales assistant, passing through various positions until 1919, when he was made lubrication manager at Baltimore.

In 1924, following the death of Walter J. Moser, Mr. Saybolt was transferred to 26 Broadway and placed in charge of lubrication sales.

IMPERIAL OIL MAKES OFFER

CHATHAM, Ontario, Dec. 31.—Imperial Oil, Ltd., Toronto, last week made an offer to the Saskatchewan provincial government of an advance of $250,000 in anticipation of gasoline tax payments. The offer was contingent upon the government continuing the 1932 motor license period to April 1, 1933. The offer at last reports was being considered by the Government.

A similar offer from Imperial Oil, Ltd., and other companies to the British Columbia provincial government of $500,000 was made; and it is understood Imperial Oil, Ltd., was prepared to advance $150,000 on the same conditions to the Alberta government. Premier Brownlee of Alberta states, however, that the offer will not be accepted by his government.

Government Awards Contracts for Large Quantity of Bunker and Diesel Oil

NEW YORK, Jan. 2.—The bureau of supplies and accounts, Navy Department, Washington, D. C., has placed a number of important fuel and Diesel oil orders. The variations in prices in most cases are explained by differences in transportation costs. The contracts let are as follows:

Continental Oil Co., 20,000 bbls. of Diesel oil for delivery at Washington, D. C., $1.68 per barrel.

Colonial-Beacon Oil Co., for delivery at Boston, 65,000 bbls. of bunker fuel oil at $1.09 per barrel; 10,000 bbls. of bunker fuel oil at $1.14 per barrel; 25,000 bbls. of bunker fuel oil at $1.09 per barrel; and a quantity of Diesel oil at $1.65 per barrel. Tide Water Oil Co., 20,000 bbls. of Diesel oil for delivery at New York at $1.65 per barrel. Cities Service Refining Co., for delivery at Boston, 18,000 bbls. of bunker fuel oil at 79 cents per barrel, and 2,000 bbls. of bunker fuel oil at 84 cents per barrel.

Shell Eastern Petroleum Products, Inc., 1,000 bbls. of Diesel oil for delivery at New London, Conn., at $1.65 per barrel. Warner-Quinlan Co., 50,000 bbls. of bunker fuel oil for delivery at New York at 78½ cents per barrel, and 25,000 bbls. of bunker fuel oil for delivery at New London, Conn., at $1.07 per barrel.

Maritime Oil Co., Houston, Tex., 20,000 bbls. of bunker fuel oil for delivery to Galveston, at 57½ cents per barrel. Standard Oil Co. of New York, 15,000 bbls. of bunker fuel oil for delivery at New London, Conn., at $1.42 per barrel; 35,000 bbls. of bunker fuel oil for New London at $1.27 per barrel; 4,000 bbls. of Diesel oil for Portsmouth, N. H., at $1.92 per barrel; 5,000 bbls. of Diesel oil for Boston at $1.64 per barrel; and 8,000 bbls. of Diesel oil for New London at $1.75 per barrel.

Magnolia Petroleum Co., 12,000 bbls. of bunker fuel oil for delivery at Beaumont, Tex., at 68 cents per barrel. Mexican Petroleum Co., 30,000 bbls. of bunker fuel oil for delivery at Savannah, Ga., at 70 cents per barrel and 30,000 bbls. of bunker fuel oil for delivery at Jacksonville at 30 cents per barrel.

Standard Oil Co. of New Jersey, 100,000 bbls. of bunker fuel oil for delivery at New York at 95 cents per barrel; 60,000 bbls. of bunker fuel oil for delivery at New York at 75 cents per barrel; 5,000 bbls. of bunker fuel oil for delivery at Washington at 95 cents per barrel; 35,000 bbls. of bunker fuel oil for delivery at Hampton Roads at 80 cents per barrel; 5,000 bbls. of bunker fuel oil for delivery at Charleston at 70 cents per barrel; 30,000 bbls. of Diesel oil for delivery at Point Aransas at 60 cents per barrel.

Sinclair Refining Co., for delivery to Philadelphia, 10,000 bbls. of bunker fuel oil at 78 cents per barrel; 30,000 bbls. of bunker fuel oil at 98 cents per barrel; and 10,000 bbls. of bunker fuel oil at $1.07 per barrel.

Gulf Refining Co., 5,000 bbls. of bunker fuel oil for delivery to New York at 90 cents per barrel, 10,000 bbls. at 85 cents, 20,000 bbls. at 80 cents, 25,000 bbls. at 85 cents; 75,000 bbls. of bunker fuel oil for delivery to Philadelphia at $1 per barrel, 1,000 bbls. at $1.07 per barrel, 5,000 bbls. at 75 cents per barrel, and 10,000 bbls. at 85 cents per barrel; and for delivery to New Orleans, 30,000 bbls. of bunker fuel oil at 60 cents per barrel.

New Jersey Co. Widens Marketing of Specialties

NEW YORK, Jan. 2.—An interesting review of the organization and growth of Stanco, Inc., specialties division of the Standard Oil Co. of New Jersey, appears in the current issue of that company's publication, "The Lamp."

With the outbreak of the World War cutting off shipments of medicinal white oil to the United States from Germany and Belgium, "The Lamp" says, Standard Oil Co. (New Jersey), foreseeing a new market for American manufacturers, set up a plant at Bayonne for the making of Nujol. F. H. Bedford, Jr., and two assistants were appointed to take charge of the new product.

Today, the force of Stanco, Inc., has grown into an organization of 478 employes, set up as a separate group of subsidiaries under Stanco, Inc., with "Nujol" now the patriarch of a family numbering 40 products, which are sold in 122 countries.

"There is scarcely a department in the up-to-date drug store in which at least one member of the Stanco line is not notably represented," says The Lamp. "Among the medicinal supplies are Nujol and a later product of pleasant taste, Cream of Nujol. For colds there is Mistol and Essence of Mistol. Flit sprayers with the familiar soldier trade-mark are well known."

Other Stanco products include numerous beauty products, shaving creams and lotions, radiator rust remover, rust preventive, stop leak, and antifreeze, metal polish, cattle spray and cleansing liquids.

The board of directors of Stanco, Inc., is now composed of F. H. Bedford, Jr., president; F. W. Moss, vice president and general manager; F. W. Abrams, vice president; R. K. Chandler, assistant general manager; M. B. Hopkins, in charge of plant and research; E. F. Johnson, counsel; A. A. Lacazette, S. C. Hope, G. P. Morgan and E. J. Marvin.

Heading other divisions of the company are: E. B. Hunn, research; H. M. Bowman, Bayway plant; G. T. Daggett of Daggett & Ramsdell; F. E. Powell, in charge of Gilbert & Barker range burner sales; W. J. Zick, domestic sales; G. W. Long, export sales (European division); A. J. Millard, domestic advertising; D. M. Davies, export advertising, and W. F. Willis, office manager.

Under Stanco, Inc., come various operating subsidiaries. Stanco Distributors, Inc., markets Stanco products and certain of the Daggett & Ramsdell line in the United States. In Continental Europe, Stemco, S.A.F., is the marketing subsidiary, with headquarters in Paris and branches throughout Europe, north and west Africa and the Near East, under the direction of R. W. Mogford. The United Kingdom is served by Stemco, Ltd., located in London, in charge of Samuel Collier.

Daggett & Ramsdell was acquired by Stanco in 1929 and not only manufactures the complete line of cosmetics but carries on the sale of these products in the United States and abroad. It is headed by F. H. Bedford, Jr., president; F. W. Moss, vice president, and V. C. Daggett and E. J. Marvin, directors.

Tax on Lubricating Oils Burdensome to Industries

The present 4-cent excise tax on lubricating oils is proving to be a heavy tax on industry according to Fayette B. Dow, vice president of the Pennsylvania Grade Crude Oil Association. In an address before the Pennsylvania Mineral and Forest Land Taxation Commission on "Taxation of Petroleum Products," Mr. Dow pointed out that while the car owner was feeling the tax through the purchase of motor oils, the 4-cent tax of the Federal Government which became effective July 1 was an even greater burden to many industrial users of lubricating oils.

"In enacting this tax, I think Congress intended to levy another tax on the motorist," Mr. Dow said.

"However, it is transparently true that not a wheel turns in industry without lubricating oils. A study by the McGraw-Hill Publishing Co. shows that 20,000,000 bbls. of oil were used in 1929 for lubricating purposes. Automobiles consumed 22 per cent, and commercial cars, trucks and buses, 21 per cent—making 43 per cent for automotive use. Industrial plants and the arts consumed 53 per cent and miscellaneous requirements were 4 per cent. The railroads are, of course, very large consumers of lubricating oils. Their car oils and black oils cost them about 10 cents per gallon. On this oil a sales tax of 40 per cent is imposed.

"A very large quantity of the lubricating oils as they leave the Pennsylvania refineries are in the form of bright stocks or neutrals. The present price of 25 pour test bright stock is about 18 cents per gallon. The 4-cent tax added to this amounts to a sales tax of 22 per cent. Neutrals of 200 viscosity at 70 degrees are selling for about 13 cents per gallon and the 4-cent tax applied to these oils amounts to 31 per cent; 150 viscosity neutrals are selling for about 8 cents per gallon and the tax on these oils is a sales tax of 50 per cent.

"These taxes on lubricating oils are a particularly hard burden upon the Pennsylvania refiners because Pennsylvania lubricants must always command a higher price than other lubricants on account of the relatively higher price of crude oil. Under present conditions when there is a very great pressure for a cheap product, the necessary addition of 4 cents per gallon is undoubtedly turning a substantial amount of buying to lower priced oils.

"Furthermore, it seems certain that a substantial amount of oils originally sold for nonlubricating purposes are eventually appearing in the market as lubricating oils and this undoubtedly accounts in part at least for the oils which are being offered to the motorist at from 5 to 10 cents per quart. The lubricating oil market, especially for motor oils, is badly demoralized at the present time and some part of the responsibility for this situation is due to the excessive tax."

SHELL OPENS SOUTHERN OFFICE

NEW YORK, Jan. 2.—Shell Eastern Petroleum Products, Inc., has opened a new sales division, the southern district, covering North and South Carolina, with headquarters in Charlotte, N. C.

C. E. Smith, former assistant district manager of the New England district, is district manager for the southern district, with H. H. Bird, former manager of the credit division of the central district, as assistant. E. Craig Wilton, former retail sales manager for the central district, is district supervisor of tank wagon sales in the new division.

NEWS FOR PETROLEUM REFINERS

Sun Denies Charges of Business Bureau Regarding Gasoline

In full page advertisements appearing in eastern newspapers the Sun Oil Co. "answered" the National Better Business Bureau which had questioned the accuracy of some of the claims made for the company's gasoline. The particular statement questioned by the business bureau in this case was "Blue Sunco contains more premium qualities than many extra priced gasolines . . . yet it sells at regular gas price."

In its advertisements the Sun company explains that E. W. Saybolt & Co. was employed to make an impartial investigation of the quality of the gasoline. The company secured 24 samples from company-owned stations of the Sun company and competitive premium brands located in four cities in New Jersey. Following the analysis of the gasoline samples the data were submitted to Dr. George G. Brown for interpretation. Doctor Brown is a member of the faculty of the University of Michigan and his conclusions as to what constitutes quality in motor fuels is of special interest.

Doctor Brown said in rating the Sunoco samples and competitive brands that he considered nine qualities as pertinent to premium performance as follows: Ease in starting; acceleration or responsiveness to throttle; knock rating or freedom from detonation; gum content; chemical stability; sulphur content; purity or freedom from foreign chemical compounds; freedom from vapor lock tendency; and mileage or heat units contained in 1 gallon of fuel.

Summarizing his findings, Doctor Brown reported:

"The test of the sample of Blue Sunoco obtained in each of the four cities in New Jersey was compared with the tests of

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Scott to Manage Sales and Refinery for Wirt Franklin

W. L. Scott, who has been connected with North Texas refining and marketing activities for several years, has been appointed manager of the refining and marketing departments of the Wirt Franklin Petroleum Corp., of Ardmore, Okla. Mr. Scott assumed his new duties at the Ardmore headquarters of the Wirt Franklin corporation January 2. The corporation has owned and operated a 3,000-bbl. refinery at Ardmore for several years and has a large number of company-owned stations in Oklahoma with tank car distribution in several states.

Mr. Scott for several years was in charge of marketing for the American Refining Properties at Wichita Falls, Tex. Previously he was sales manager of the Texhoma Oil & Refining Co. now a part of the Continental Oil Co.

MAY BUILD PLANTS IN TEXAS

FORT WORTH, Tex., Jan. 2.—Two more small refineries have been proposed on the eastern edge of the West Texas district, principally to handle oil from wells in Jones and Fisher Counties which do not have pipe line outlets at the present time. One of these plants may be erected at Abilene, and Hamlin is said to be the location for the other, Hamlin being located nearest the Fisher County well which does not have a connection. Nothing definite has been reported on the two plants, but information on them is expected to be gained during the week.

Marathon to Start Construction Work at Bristow and Fort Worth Refineries

Expressing confidence "that the year 1933 will mark a substantial improvement in industry," L. B. McCammon, vice president of the Marathon Oil Co., Tulsa, announced last week that a new cracking unit would be installed immediately at each of the company's refineries located at Fort Worth, Tex., and Bristow, Okla. The improvement programs at these refineries has been under consideration for some time and it was decided the first of the year to start the actual construction work within a few weeks so that the equipment will be ready to operate by June. Work at both refineries will be carried on at the same time.

The main equipment to be installed at the refineries will be the new cracking facilities. Other improvements, however, will also be made including the installation of stabilizing units. The cracking units which will be installed by the M. W. Kellogg Co. have been designed to include reforming of light fractions as well as the cracking of heavy oils and will produce gasolines of high antiknock rating. Mr. McCammon in announcing the improvements said, "the work does not involve any expansion of refining capacity by the company but is intended to increase the flexibility of yields and character and quality of products to meet present day marketing conditions in Marathon's trade territory." Both the Fort Worth and Bristow refineries have rated crude oil capacities of 5,000 bbls. daily. These plants for several years operated cracking units designed by A. J. Slagter, general superintendent of refineires. The company also has refineries located at Del Rio, Tex., and Boynton, Okla.

The Marathon company is a subsidiary of the Ohio Oil Co., a major producing and pipe line operator. Over the past year the company has expanded its retail marketing facilities centering in Oklahoma and Texas. Another subsidiary of the Ohio company, the Lincoln Oil Refining Co., with a refinery at Robinson, Ill., has enlarged its marketing facilities in several states of the Middle West.

Walter Miller Chairman of Refinery Technology Group

Members of the A.P.I. Central Committee on Refinery Technology for 1933 have been named by D. J. Moran, vice president and chairman of the general committee of the division of refining, according to announcement made by R. P. Anderson, secretary of the committee. The members and their affiliations follow:

Chairman, Walter Miller, Continental Oil Co., Ponca City; secretary, R. P. Anderson, American Petroleum Institute; D. G. Brandt, H. L. Doherty & Co., New York; H. W. Camp, Empire Oil & Refining Co., Tulsa; S. P. Coleman, Humble Oil & Refining Co., Houston; T. G. Delbridge, Atlantic Refining Co., Philadelphia; R. A. Halloran, Standard Oil Co. of California, San Francisco; R. E. Haylett, Union Oil Co. of California, Los Angeles; F. E. Holsten, Barnsdall Refining Co., Tulsa; E. W. Isom, Sinclair Refining Co., New York; E. R. Lederer, Texas Pacific Coal & Oil Co., Fort Worth; N. E. Loomis, Standard Oil Co. of New Jersey, Elizabeth; K. G. Mackenzie, The Texas Company, New York; John W. Newton, Magnolia Petroleum Co., Beaumont; R. C. Osterstrom, Pure Oil Co., Chicago; L. W. Parsons, Tide Water Oil Co., Bayonne; A. E. Pew, Jr., Sun Oil Co., Philadelphia; J. B. Rather, Socony-Vacuum Corp., New York; H. G. Smith, Gulf Refining Co., Philadelphia; G. H. van Senden, Shell Oil Co., San Francisco, and R. E. Wilson, Standard Oil Co. (Indiana), Chicago.

In addition to the appointed members the following will serve in their capacity of separate committee chairmen: C. H. Haupt, for the committee on fire prevention in refineries, Standard Oil Development Co., Elizabeth; J. S. Hess, for the committee on disposal of refinery wastes, Sinclair Refining Co., New York; Walter Samans, for the committee on corrosion of refinery equipment, Atlantic Refining Co., Philadelphia, and C. W. Smith, for the committee on accident prevention in refineries, Standard Oil Co. (Indiana), Chicago.

Membership on these separate committees will be announced later by Chairman Miller of the central committee.

Propose New Barter With Canada for Russian Crude

CHATHAM, Ontario, Dec. 31.—Further projects looking to the bartering of Soviet petroleum products for Canadian cattle, hides and other commodities are this week being considered by the Canadian government, whose approval is necessary before the deals can go ahead.

The new projects are indirectly the outcome of the deal made earlier in the year whereby the Aluminum Co. of Canada bartered aluminum products to the Soviet government in return for petroleum. Under this arrangement four tanker cargoes, three of crude oil and a fourth of refined petroleum products, were delivered at Montreal. After the delivery of the fourth cargo, however, the LaSalle Petroleum Refining Co., Ltd., announced that it would not receive further shipments, and, so far as is known, the original deal is still uncompleted.

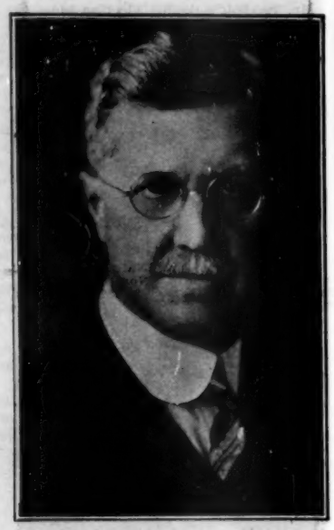
The present project was initiated by a western syndicate and contemplates the exchange of $7,000,000 of cattle and hides for Soviet oil and coal. The Russian authorities have agreed to purchase 100,000 head of cattle at a minimum price double the current market price; and 10,000 tons of hides at a price four times the current market price. The Canadian purchasers are to accept payment largely in Russian gasoline, with approximately 100,000 tons of anthracite coal. The Canadian government has been asked to provide the cash to finance purchase of the Canadian commodities until the Western Syndicate can dispose of the oil and coal. The former is to be offered to Canadian oil companies and the latter to Canadian coal companies. In the event of existing trade organizations refusing to handle the Russian goods, the Western Syndicate proposes to retail them direct.

DENY NEW REFINERY PLANS

NEW YORK, Jan. 2.—Reports circulated in financial quarters to the effect that The Texas Corporation and Socony-Vacuum have virtually completed arrangements for the construction of a large oil refinery in Argentina were denie dhere today by officials.

Humphreys Retires as Vice President of Indiana Standard

After nearly 33 years of service, Dr. R. E. Humphreys retired on Saturday, December 31, from his position as vice president in charge of manufacturing and from membership on the board of direc-



DR. R. E. HUMPHREYS

tors of Standard Oil Co. (Indiana). His action was occasioned by his reaching the age for retirement specified under the company's annuities plan.

Succeeding to his responsibilities, Dr. Max G. Paulus, general manager of

DR. MAX G. PAULUS

manufacturing, will become vice president in charge of manufacturing operations, and Dr. Robert E. Wilson will become vice president of research and development. Harry F. Glair, assistant general manager of manufacturing advances to general manager.

Doctor Humphreys joined Standard in

(Continued on Page 37)

NATURAL GASOLINE MANUFACTURE

California Stocks Natural Gasoline Lower in November

Natural gasoline stocks declined in California at the close of November to 2,337,380 bbls., a decrease of 12,088 bbls. daily during the month. During the same period production was cut from 33,125 bbls. daily to 32,824 bbls. and refinery consumption increased from 29,327 bbls. to 30,088 bbls. daily, according to the Bureau of Mines.

A substantial increase was also shown in the production of liquefied gases, the daily average output for November being 408 bbls. and for the previous month 387 bbls. Despite this increase in production, sales increased in still greater proportion and stocks were drawn upon.

CALIFORNIA NATURAL GASOLINE STATISTICS FOR OCTOBER AND NOVEMBER

(Daily average in barrels)

	Natural gasoline Nov.	Oct.
Supply		
Total production	33,232	33,522
Stock trans. (deliv.) receipt—net	(735)	(943)
Total	32,497	32,579
Deduct refinery requirement:		
Runs to stills	3,194	2,724
Blended	26,894	26,603
Total	30,088	29,327
Gains (losses) unaccounted for—net	(3,167)	(1,269)
Net supply available to market	242	1,983
Demand		
Domestic consumption inc. bunkers	420	409
Off shore shipments:		
Alaska and Hawaii	1	0
Pac. foreign exports	1,760	751
Atlantic foreign exports	5,013	0
Intercoastal shipments	5,115	3,080
Rail and truck shipments to U. S. points outside Pac. coast terr.	8	8
Ttl. market dem'nd	12,330	4,248
Surplus or (deficit)	(12,088)	(2,265)

OPERATING DATA

Number of plants operating	103
Daily capacity in thou. cu. ft.	2,554,957

PRODUCTION BY FIELDS

	Gas treated (thousand cu. ft.)	Natural gasoline produced (gallons)
Fullerton and Whittier	464,432	1,130,185
Midway	1,557,442	2,677,331
Huntington Beach	382,423	1,279,258
Kettleman Hills	7,946,765	10,253,512
Long Beach	3,317,943	7,693,703
Richfield	371,348	414,050
Santa Fe Springs	4,956,274	7,491,382
Seal Beach	451,386	832,481
Ventura Avenue	3,421,982	3,376,777
All other fields	3,899,029	6,209,452
Total	26,669,024	41,358,131

PRODUCTION BY METHODS

Type of plant—	Gas treated	Natural gasoline produced (gallons)	Gasoline recovery per M.C.F. gas treated
Oil absorption	26,523,978	41,196,254	1.553
Compressor	145,046	161,877	1.116
Total	26,669,024	41,358,131	1.551

Finished gasoline produced at plants, barrels 204

STOCKS

	Gallons	Barrels
Natural gasoline held by plant operators	2,449,746	58,327
Natural gasoline held by refineries	95,720,226	2,279,053
Total	98,169,972	2,337,380

LIQUEFIED PETROLEUM GASES

(Barrels—daily average)

	November	October
Production	408	387
Sales	420	366

Natural Gasoline Bore Brunt of Decline in Motor Fuel Shipments From Refineries

During the first 10 months of 1932, 6.8 per cent of the gasoline shipped from refineries in the United States was natural gasoline. In the same period in the previous year the volume approximated 8.2 per cent. Reviewing the comparison of the two periods it will be seen that 21,687,000 bbls. of natural gasoline were absorbed in refinery shipments in the first 10 months of 1932, while 29,461,000 bbls. were thus accounted for in the same period in the previous year.

While natural gasoline consumption has suffered a greater loss in volume than either straightrun or cracked gasoline, the comparison is marked by "decreases" throughout. In correlating the use of natural gasoline with that of refinery operations decreases are shown in the volume of crude run, the volume of prices have been maintained better during the past six months than the review of the following consumption statistics might suggest.

At present the better relative position of natural gasoline is due in part to the season, but there is also a more liberal use of natural gasoline seen among many refiners in order to improve the quality of their finished motor fuel. As a result, the last two months' figures for 1932 will probably indicate a more favorable position for natural gasoline.

Of the various areas which have curtailed their consumption of natural gasoline, the East Coast refiners show the largest decline when stated as a percentage of what was consumed the first 10 months of 1932 with that of the same period in the previous year. The consumption in 1932 was only about 35 per cent of what it was in the previous year. Coastal Texas and Coastal Louisiana also reduced their takings by substantial quantities as may be expected, because of the large drop in exports of motor fuel from these points, and because of their great distance from the producing centers. From the standpoint of quantity, the California group of refiners cut their consumption of natural gasoline more than any other area. Because of the large production of natural gasoline there at costs that are probably below that of the average of the industry it is interesting to note that despite this, California refiners increased the percentage of cracked gasoline going into their motor fuel and decreased the percentage of natural. The volume of natural gasoline consumed in California for the first 10 months of 1932 was 9,544,000 bbls. compared with 7,786,000 bbls. in the same period a year previous. This decline of one and three-quarter million barrels in production accounts for about 23 per cent of the total decline. In the accompanying table are shown the detailed statements of the volume of straightrun, cracked and natural gasoline blended at refineries in the United States in the first 10 months of 1932 and in the same period in the previous year and these are shown by areas. All data are taken from reports made by the Bureau of Mines.

TABLE 1—RELATIVE VOLUMES OF NATURAL GASOLINE, STRAIGHTRUN AND CRACKED GASOLINES BLENDED BY AREAS

FIRST NINE MONTHS OF 1932

	Straightrun Bbls.	%	Cracked Bbls.	%	Nat. gasoline Bbls.	%	Total, bbls.
East Coast	25,295,000	45.1	30,462,000	54.1	441,000	.8	56,198,000
Appalachian	7,104,000	49.5	6,934,000	48.5	309,000	2.0	14,347,000
Ind., Ill., Ky., etc.	23,551,000	46.4	25,789,000	50.7	1,459,000	2.9	50,799,000
Okla., Kans.	23,081,000	53.0	16,460,000	38.0	3,921,000	9.0	43,462,000
Inland Texas	13,412,000	57.9	7,074,000	30.5	2,687,000	11.6	23,173,000
North La., Ark.	3,426,000	49.3	2,873,000	40.7	715,000	10.0	7,014,000
Coastal Texas	26,008,000	46.0	27,961,000	49.3	2,755,000	4.7	56,724,000
Coastal La.	6,536,000	47.4	6,495,000	46.9	785,000	5.7	13,816,000
Rocky Mountain	3,069,000	45.3	2,896,000	42.5	829,000	12.2	6,794,000
California	33,238,000	60.4	14,160,000	25.4	7,786,000	14.2	55,184,000
Total United States	164,720,000	50.1	141,104,000	43.1	21,687,000	6.8	327,511,000

FIRST NINE MONTHS OF 1931

	Straightrun Bbls.	%	Cracked Bbls.	%	Nat. gasoline Bbls.	%	Total, bbls.
East Coast	25,207,000	44.2	30,558,000	53.6	1,269,000	2.2	57,034,000
Appalachian	8,320,000	57.1	5,837,000	40.0	422,000	2.9	14,579,000
Ind., Ill., Ky., etc.	27,420,000	49.0	26,319,000	47.0	2,233,000	4.0	55,972,000
Okla., Kans.	28,636,000	55.3	18,689,000	36.1	4,426,000	8.6	51,751,000
Inland Texas	17,166,000	63.5	6,992,000	25.8	2,899,000	10.7	27,057,000
North La., Ark.	3,601,000	49.8	2,744,000	38.0	881,000	12.2	7,226,000
Coastal Texas	26,735,000	42.5	30,751,000	48.9	5,374,000	8.6	62,860,000
Coastal La.	6,072,000	41.2	7,324,000	49.7	1,343,000	9.1	14,739,000
Rocky Mountain	4,540,000	45.3	4,403,000	44.0	1,070,000	10.7	10,013,000
California	36,945,000	62.6	12,485,000	21.2	9,544,000	16.2	58,974,000
Total United States	184,642,000	51.2	146,102,000	40.6	29,461,000	8.2	360,205,000

TABLE 2—PERCENTAGE OF GASOLINE BLENDED BASED ON CRUDE OIL REFINED

	Straightrun gasoline output	Cracked gasoline output	Total straightrun and cracked	Natural gasoline used	Total yield per barrel of crude
1918	22.7	2.6	25.3	0.8	26.1
1919	22.5	2.8	25.3	0.8	26.1
1920	22.6	3.5	26.1	0.7	26.8
1921	22.6	4.5	27.1	0.6	27.7
1922	22.8	6.0	28.8	0.7	29.5
1923	24.0	6.0	30.0	1.0	31.0
1924	25.0	6.2	31.2	1.9	33.1
1925	23.1	9.3	32.4	2.7	35.1
1926	22.9	12.0	34.9	3.6	38.5
1927	23.8	12.2	36.0	3.9	39.9
1928	24.0	13.4	37.4	3.9	41.3
1929	24.8	14.5	39.3	4.7	44.0
1930	24.2	17.7	41.9	4.7	46.6
1931	24.6	19.7	44.3	3.9	48.2
First 9 months 1932	23.9	20.5	44.4	3.3	47.6

straightrun gasoline made, the volume of cracked gasoline made and the volume of total gasoline shipped.

As the volume of the production of these three sources of motor fuel declined, they declined in different proportions and natural gasoline was forced to give way to the growing relative importance of cracked gasoline.

The natural gasoline industry foresaw the growing tendency to crack and knew that attendant with cracking was the production of large volumes of light gasoline fractions within the refinery. The industry then began to stabilize its production and in some cases reduce the vapor pressure of the product to the point where it was used as motor fuel without blending. Production was thus cut near to demand and natural gasoline

Establish New Limits in Use of Liquid Gas Drums

Drums made under Specification 5F are authorized for use in the transportation of liquefied gas having a gas pressure not over 28 pounds at 70° F., nor over 86 pounds at 130° F., according to a decision reached by Division 6 of the Interstate Commerce Commission in Washington on December 27. The detailed order appears below.

406. (f) Drums made under Specification 5F are also authorized for liquefied petroleum gas with gas pressure not over 28 pounds per square inch at 70° F., nor over 86 pounds per square inch at 130° F. Specification 5 drums must not be used for shipments with such pressures, but may be used when the gas pressure is not over 23 pounds per square inch at 70° F., nor over 70 pounds per square inch at 130° F.

Add Subparagraph 5 to "exceptions" as to safety devices, Paragraph 418, freight, to read as follows:

5. Drums containing liquefied petroleum gas as provided for in Paragraph 406 (f).

It is further ordered, that compliance with the aforesaid amendments made effective by this order is hereby authorized on and after the date of approval and publication thereof;

It is further ordered, that the aforesaid regulations as further amended herein shall be and remain in force on and after April 1, 1933, and shall be observed until further order of the commission.

And it is further ordered, that copies of this order be served upon all the respondents herein, and that notice to the public be given by posting in the office of the secretary of the commission at Washington, D. C.

Operators in Panhandle Await New Court Orders

AMARILLO, Tex., Jan. 3.—If certain interests in the Panhandle Field fail to secure a permanent injunction against the order of the Texas Railroad Commission which limits gas production in that field to market demands, the volume of natural gasoline produced in this area will be substantially reduced. The original order of the commission was made effective January 1 and limited the production of gas to a market demand on the part of pipe lines to 300,000,000 feet a day.

These Panhandle plants manufactured about 440,000 gallons daily during October and on this basis, recovered 1.6 gallons per 1,000 feet. Just what gasoline production would result from the enforcing of the commission's order is problematical, but it has been estimated that the output would be reduced by from 25 to 30 per cent and the output would lie between 300,000 and 350,000 gallons daily.

Possibilities of Oil in Northeastern Texas

(Continued from Page 13)

The well is in the syncline between the Jamestown and Harrison County highs. A partly saturated sand was encountered at a subsea depth of 3,454 feet. It subsequently tested salt water in sufficient quantities to assure permeability in the sand in that area.

The Jamestown high should develop into a producing area of some importance. The source beds for this area as well as the other three are not established with certainty. However, they are the same as those for the field and are, to say the least, adequate. Apparently the structural trap is closed on all sides. Sand conditions are not ideal, but there is sufficient evidence of their permeability to warrant a prediction of satisfactory production from them.

Northwest Harrison County High

Surface Geology—The preceding comment on the surface geology of the Jamestown high is equally applicable to that of the Harrison County high except that the structure is a bit more apparent in the latter case.

Subsurface Geology — The subsurface structure is shown in Figure 4. Although there is insufficient control to warrant insistence that the feature is exactly as shown there can be little doubt that a similar structure exists. The only discouraging feature is the restricted permeability in the Woodbine section in the Hindman, Peuterbaugh and Hudspeth wells. The Hindman well, which is low, drilled a good Woodbine section, but it was mostly ash and bentonite. The condition can be explained by its structural position and differential sorting as was previously done. Restricted porosity in the other two wells mentioned suggests that the crest of the high will not produce. However, the very satisfactory permeability of the sand in the Shasta well points strongly to a promising area on the south flank of the high between the crest and the Shasta well. The essentials of source, reservoir and trap seems to be present along the south flank of the high but the crest and north flank are considered dangerous territory.

Western Marion County High

Surface Geology — The high is in the area of Weches outcrop and the surface shown in Figure 4 was detailed on the top of that formation. The fault shown is indicated by the steep dips in the Queen City beds adjacent to it. The Weches is about 55 feet thick and the Queen City is about 100 feet thick. All of the high hills in the area are capped by Weches iron ore. Topographically the relief is as much as 200 feet. In the winter season when the leaves are off the trees and brush the surface closure can be checked with a hand-level from the higher hills in the center of the structure.

Subsurface Geology—The closure shown in the subsurface contours in Figure 4 is based to some extent on the well-defined surface closure. However, the contour pattern as established by the path from the Smitherman well in Cass County to the Gillette well in Upshur County and back to the Hindman well in Marion County, along with the turning back of the —3,300 contour by the Benedum and Shelton wells constitutes reasonable evidence that the closure exists in fact. In an area in which extreme flattening is decidedly uncommon the writer does not feel justified in underestimating the closure because of the approved tendency to show only the minimum possibility. The closure shown is considered as a probability rather than a possibility and is not to be considered as a certainty.

The Shelton and Benedum wells encountered fairly clean sand. The Smitherman, Sinclair-Coulter and Hindman wells encountered mostly ash and bentonite in the Woodbine section. None of the wells encountered a show in the Woodbine, but the Shelton well had a good show in the Nacatoch and a fair show with salt water in the Blossom. The writer believes that the shows in the Shelton well are attributable to its proximity to the fault shown and that the fault either does not extend as far down as the Woodbine or that it occurred after Woodbine accumulation, if any, had taken place.

The Marion County surface closure is fairly well established. The subsurface closure, although based to some extent on the surface feature, nevertheless is a reasonable interpretation on its own merits. Sand conditions, although not wholly satisfactory, seem sufficiently favorable to accumulation and movement. There is some evidence that the folding is sufficiently old to allow Woodbine accumulation. If the conditions postulated exist in fact as well as in theory and conclusion, the structure should produce from the Woodbine. However, any production found will be the result of purely anticlinal accumulation, uncomplicated by the unconformity and shoreline considerations postulated for the other areas discussed.

West-Central Marion County Shoreline Trap

Surface Geology—Something, the writer knows not what, has happened to the section exposed in the area. To date it has successfully defied his attempts at analysis. The outcrops are of Reklaw and Queen City age and there is no determinable reflection of the subsurface structure.

Subsurface Geology—A sufficient number of wells has been drilled in the area since the East Texas discovery to permit dependable subsurface contouring. The Sinclair-Braden well missed the sand. Also, the interval between the base of the Pecan Gap and the top of the Comanchean is insufficient to allow Woodbine deposition. The sand encountered in the Benedum and Shelton wells pinches out somewhere between those wells and the Braden well. Granted the structure as shown and reasonable permeability in the sand, it should produce from its edge to a point somewhere between the edge and the Benedum well.

Water Levels

As a result of the differences in the ages of folding and thus differences in the times at which accumulation commenced, there is no reason to assume that water levels in the various areas northeast of the field will be the same or nearly the same as the water level in the producing field. If production is found northeast of the field it is quite probable that each separate area will possess a water level peculiar to itself alone.

Conclusions

From the evidence presented, the writer has concluded that the four local areas described offer possibilities if not probabilities of commercial production from the Woodbine sand.

A conclusion is a concept and not necessarily a fact. The writer has attempted to distinguish between the two in this paper. The conclusion above stated is based on some fact and some theory but it is, nevertheless, a conclusion. The writer recommends that the four areas be watched carefully and with an open mind, leaning, if at all, in the direction of optimism.

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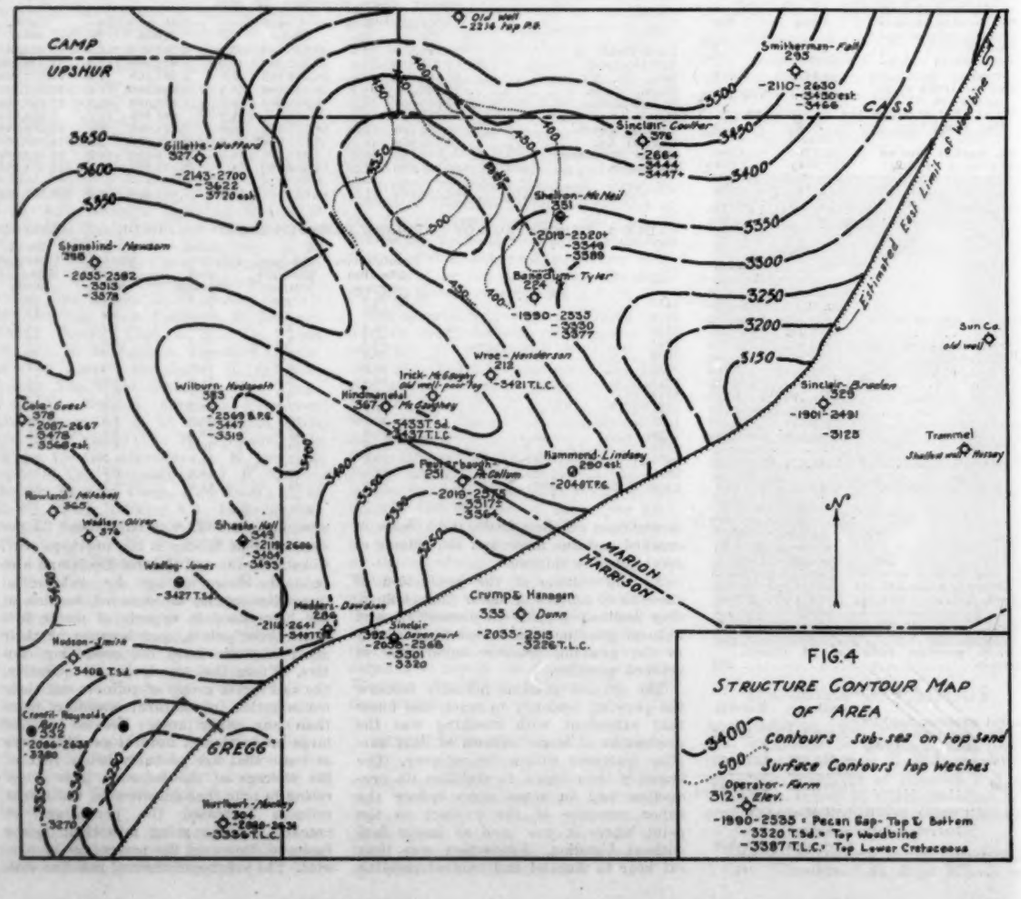

OIL STORAGE COMPLETED

CHATHAM, Ontario, Dec. 31. — McColl-Frontenac Oil Co. of Montreal has completed construction of its 2,500,000-gallon storage unit at Fort Williams, Ontario. The new unit is designed to facilitate distribution of the company's products in western Canada. The company's refineries are located at Montreal and Toronto, and it has three tankers to deliver its products from these points to the head of the lakes.

COLOMBIA PETROLEUM CONTRACT

The Colombia press announces completion of the long-negotiated contract between the Colombian government and the Union Colombiana de Petroles. The contract covers 33,475 hectares of land in the Carare region, where the Union will be able to proceed with exploration upon official publication of the contract.

BRITISH GASOLINE TAX

The chancellor of the exchequer, in reply to a recent question in the House of Commons, gave the following details of the net amount of revenue derived from the United Kingdom duty on imported motor spirits during each of the financial years since the reimposition of the duty in 1928: 1928-29, £12,982,000; 1929-30, £15,043,000; 1930-31, £15,909,000; 1931-32, £29,277,000. The estimate for the current financial year is £34,200,000.

Austrians Rejoicing Over Discovery of Oil and Gas Near Vienna

Visions of a new prosperity are awakening new hope in Austria. Petroleum is spurting out of the ground near Vienna, says an Associated Press report.

Long chronically short of funds and oversupplied with disillusionments, Austrians generally paid little attention to recent efforts at drilling for oil. Such attempts always had failed, and it was too hard to believe they would not fail in the future.

Even when an American company, drilling at Ober Laa, on the outskirts of Vienna, suddenly struck a powerful flow of natural gas the enthusiasm was not exactly enormous. But when, a few weeks later, a Swiss financed syndicate struck oil near Zistersdorf, about an hour's ride from Vienna, and people could go to the spot and actually dip their hands in the magic flow, the excitement was unmistakable.

Newspapers headlined it "The Salvation of Austria," and cartoonists dropped their gloomy political themes to draw pictures of the creditor nations coming to oil-rich Austria and asking for loans. An expert from the Vienna Institute of Technology even estimated there was enough oil in the Zistersdorf Field to pay off all the losses of the Credit-Anstalt, the $70,000,000 bank failure which the Austrian government has been trying to untangle since the spring of 1931.

Not all geologists went as far as this. Those with experience in the Rumanian, California and other fields pointed out that everything would depend on the duration of the present rate of flow and the quality of the oil.

The flow (about 500 bbls. daily) would not have caused much excitement in regions accustomed to 2,000-bbl. gushers, but this was Austria's first real flowing well. All other attempts had ended in dry holes or a few traces of petroleum too meager to be shipped to market.

Whether the Zistersdorf well will prove commercially successful remains to be seen. But it has one advantage over wells drilled in richer but more distant fields: Its oil, if at all usable, will be protected against the competition of imported petroleum products by tariffs and import restrictions.

Austria at the moment is especially eager to free itself from dependence on imported fuel. A new law compels the householder to buy a certain quantity of Austrian brown coal each time he orders black coal (imported) coal for his stoves. The brown coal burns with a vile smell, and people have to be forced by law to buy it; but since there is not enough of it to provide all the fuel needed it is impossible to forbid entirely the importation of coal.

If, however, the natural gas found at Ober Laa turns out to be enough to feed all Vienna's cook stoves, and the petroleum of the new oil field can be brought to the surface plentifully enough to heat Austria's locomotive and factory boilers, the country could make itself entirely free of foreign fuel markets.

ENGLAND INCREASES IMPORTS

Imports of crude and refined petroleum into the United Kingdom for the 11 months ended November 30 totaled 2,047,942,936 gallons, valued at £28,305,539, compared with 2,044,408,356 gallons, valued at £26,625,042, in the first 11 months of 1931. November imports amounted to 135,521,196 gallons, valued at £2,027,887, compared with 149,045,321 gallons, valued at £1,952,523 in November, 1931. Receipts of Persian crude in England during November were 14,127,956 gallons, as compared with 7,870,655 gallons in November, 1931.

MOSUL OIL FIELDS CO.

Mosul Oil Fields, Ltd., has been registered in Great Britain with a nominal capital of £1,000,000 in £1 shares, to acquire and hold the whole or any portion of the shares of the B.O.D. Co., Ltd., which has a concession in Iraq. The directors will be not less than 10 nor more than 20, and the first appointments shall number 10, of whom 5 shall be British, 3 Italian, 1 German and 1 French or Swiss. The chairman shall at all times be a British national.

CRUDE PRICE CHANGES

(Continued from Page 26)

and 70 cents for Lytton Springs; 50 cents for El Dorado, Arkansas, East Field and Smackover, Arkansas.

The Derby Oil & Refining Co. effective January 1, 1933, posted prices in Kansas somewhat similar to those announced last week by the H. F. Wilcox Oil & Gas Co. in Oklahoma and Gray County, Texas. The Derby company's prices are based on the average low quotations for seven days for gasoline below 57 octane number. For each one-eighth of 1 cent per gallon so quoted for such gasoline the Derby company will pay 2½ cents per barrel for oil having a gravity of 40 degrees and above. For oil below 40 gravity it will pay 2 cents less for each degree downward to below 29 degrees.

Effective January 1, 1933, the Kanotex Refining Co. posted new prices in Kansas, beginning with 28 cents for 29 degrees and below, with 2 cents added for each degree upward to 40 degrees and above, at 52 cents.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA
(Effective June 26, 1932)

For current purchases of crude oil at the well (unless otherwise specified.) (All gravities above those quoted take highest price offered in that field.)

Gravity—	Signal Hill (Long Beach)	Seal Beach, Alamitos Heights, Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canyon	Torrance	Richfield	Coyote Hills	Santa Fe Springs	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Athens, Rosecrans, Dominguez	Montebello	Wheeler Ridge	Coalinga	Whittier-La Habra
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	$.65	$.65	....	$.55	$.55	....	$.65	$.55	$.55	$.65
15-15.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
16-16.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
17-17.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
18-18.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
19-19.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	....	.65	.55	.55	.65
20-20.9	.69	.69	.71	.69	.69	.69	.69	.65	....	.59	.59	....	.65	.57	.59	.68
21-21.9	.74	.74	.77	.74	.74	.74	.74	.66	....	.63	.63	....	.67	.60	.62	.72
22-22.9	.79	.79	.82	.78	.79	.79	.79	.70	....	.69	.69	....	.70	.63	.65	.77
23-23.9	.84	.84	.88	.82	.84	.84	.84	.76	....	.75	.75	....	.73	.66	.68	.83
24-24.9	.89	.89	.92	.86	.89	.89	.89	.81	$.73	.81	.81	$.89	.76	.69	.72	.89
25-25.9	.93	.93	....	.91	.93	.93	.93	.86	.79	.87	.87	.93	.80	.72	.75	....
26-26.9	.97	.97	..	.96	.97	....	....	.90	.84	.92	.91	.97	....	....	....	....
27-27.9	1.00	....	....	....	1.00	....	....	.94	.89	.97	.94	1.00	....	....	....	....
28-28.9	1.03	....	....	....	1.03	....	....	.98	.94	1.02	.99	1.03	....	....	....	....
29-29.9	1.06	....	....	....	....	....	....	1.02	.98	1.07	1.02	1.06	....	....	....	....
30-30.9	1.09	....	....	....	....	....	....	1.05	1.02	1.12	1.05	1.09	....	....	....	....
31-31.9	....	....	....	....	....	....	....	....	1.06	....	....	1.12	....	....	....	....
32-32.9	....	....	....	....	....	....	....	....	1.10	....	....	1.15	....	....	....	....
33-33.9	....	....	....	....	....	....	....	....	1.14	....	....	....	....	....	....	....
34-34.9	....	....	....	....	....	....	....	....	1.18	....	....	....	....	....	....	....
35-35.9	....	....	....	....	....	....	....	....	1.22	....	....	....	....	....	....	....

The Texas Company, effective June 26, posted same prices as the Standard Oil Co. in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield, Montebello, North Whittier and Santa Fe Springs.

The Union Oil Co., effective June 26, posted the same price as the Standard Oil Co. in the Signal Hill, Alamitos Heights, Seal Beach, Huntington Beach, Athens, Rosecrans, Dominguez, Torrance, Santa Fe Springs, Playa Del Rey, Coyote, Olinda, Brea Canyon, Richfield and Montebello. In Coalinga, Lost Hills, Kern River, McKittrick, Midway-Sunset, Elk Hills and Buena Vista Hills the Union Oil Co. met the Standard Oil Co.'s prices from 14 gravity upward, but posted a price of 50 cents for oil 11 to 13.9 degrees in gravity.

General Petroleum adopted Standard Oil Co.'s prices, effective June 26, in Rosecrans, Signal Hill, Alamitos Heights, Santa Fe Springs, Inglewood, Torrance, Brea Canyon and Olinda, up to 35.9 degrees; Richfield, Midway-Sunset, Kern River, Mount Poso, Round Mountain and Coalinga and posted in Rincon as follows: 22-22.9 degrees, 68 cents; 23-23.9 degrees, 73 cents; 24-24.9 degrees, 78 cents; 25-25.9 degrees, 82 cents; 26-26.9 degrees, 86 cents; 27-27.9 degrees, 89 cents; 28-28.9 degrees, 92 cents; 29-29.9 degrees, 95 cents, 30 degrees and over, 98 cents. In Rosecrans, General Petroleum Co. pays 65 cents for 14 to 19.9 gravity oil; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 74 cents; 22-22.9 degrees, 79 cents; 23-23.9 degrees, 85 cents, and Standard's prices for oil of higher gravity.

Associated Oil Co., effective June 26, met Standard Oil Co.'s prices in Signal Hill, Huntington Beach, Seal Beach, Alamitos Heights, Richfield, Torrance, Inglewood, Athens, Rosecrans, Dominguez, Santa Fe Springs, McKittrick, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills, Lost Hills, Belridge and Coalinga.

Kettleman Hills—The Union Oil Co., effective June 26, posted 33-33.9 gravity oil at 91 cents; 34-34.9 degrees, 93 cents; 35-35.9 degrees, 95 cents; 36-36.9 degrees, 97 cents; 37-37.9 degrees, 99 cents; 38-38.9 degrees, $1.01; 39 degrees and over, $1.03. Standard Oil Co., Associated Oil Co. and General Petroleum Co. adopted same price schedule on same day.

Santa Paula—The Union Oil Co. and The Texas Company, effective June 26, posted as follows: 14 degrees to 19.9 degrees, 66 cents; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 72 cents; 22-22.9 degrees, 75 cents; 23-23.9 degrees, 78 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 84 cents; 26-26.9 degrees, 87 cents; 27-27.9 degrees, 90 cents; 28-28.9 degrees, 93 cents; 29 degrees and above, 99 cents.

Shields Canyon and South Mountain—The Texas Company, effective June 26, posted same prices as in Santa Paula.

Orcutt—The Union Oil Co., effective June 26, posted prices as follows: 16 degrees to 19.9 degrees, 55 cents; 20-20.9 degrees, 59 cents; 21-21.9 degrees, 63 cents; 22-22.9 degrees, 69 cents; 23-23.9 degrees, 75 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 87 cents; 26 degrees and above, 92 cents.

Playa Del Rey—Subject to a field gathering charge of 5 cents per barrel.

Newhall, McKittrick and Kern River—Standard Oil Co., effective June 23, 1931, posted 55 cents for oil of all grades.

Elwood Terrace—Standard Oil Co., effective June 26, 1932, posts 33-33.9 degrees, $1.04; 34-34.9 degrees, $1.10; 35-35.9 degrees, $1.16; 36-36.9 degrees, $1.22; 37-37.9 degrees, $1.28. All prices f.o.b. ships.

Ventura Avenue—General Petroleum Co. and Associated Oil Co. effective June 26 posted as follows: 22-22.9 degrees, 72 cents; 23-23.9 degrees, 77 cents; 24-24.9 degrees, 82 cents; 25-25.9 degrees, 86 cents; 26-26.9 degrees, 90 cents; 27-27.9 degrees, 93 cents; 28-28.9 degrees, 96 cents; 29-29.9 degrees, 99 cents; 30 degrees and over, $1.02.

Potrero—Associated Oil Co., effective June 26, posted same prices as are paid by all companies in Athens, Rosecrans and Dominguez.

Crude Oil Prices

(Continued from Page 25)

Rex Lake (Feb. 22, 1930)	1.10
Osage (Apr. 15, 1931)	.98
Lost Soldier (Apr. 12, 1932)	.80
Hamilton Dome (Dec. 16, 1932)	.25
Greybull (Dec. 16, 1932)	.87
Cat Creek (Dec. 15, 1932)	.87
Pondera (Nov. 7, 1932)	.60
Sunburst, Mont. (Nov. 7, 1932)	.75
Hogback, N. Mex. (Aug. 24, 1931)	.80
Border, Mont.	1.55
Red Coulee, Alberta	1.55
Lea County, N. Mex.	See note below
Maljamar (Dec. 15, 1932)	.45
Artesia-Jackson (Dec. 15, 1932)	.50

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull, Hogback, and Iles by Stanolind Oil & Gas Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Border and Red Coulee posted by Imperial Refining Co. Lea County, effective December 17, posted by Shell Petroleum Corp., 50 cents; effective December 15, 1932, Humble Oil & Refining Co., 50 cents. Fort Collins, Wellington, Orchard, Florence, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro Oil & Refining Co.

Eastern States

JOSEPH SEEP PURCHASING AGENCY
(Effective October 3, 1932)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$1.72
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	1.42
Penna Grade Oil in Eureka Pipe Line Lines	1.37
Penna Grade Oil in Buckeye Pipe Line Lines	1.32
Corning Grade Oil in Buckeye Pipe Line Co.'s line (Oct. 4, 1932)	.85
Ragland Grade Oil in Cumberland Pipe Lines (Kentucky) (Jan. 10, 1931)	.60

PENNZOIL CO.
(Effective October 3, 1932)

Pennsylvania Grade Oil in National Transit Lines:	
Group A (Includes Cochran, Franklin, Hamilton and Doolittle districts.)	$1.67
Group B (Includes Titusville district.)	1.66
Group C (Includes Turkey and Tidioute districts.)	1.65
Group D (Includes Bear Creek and Porkey districts.)	1.64
Group E (Includes Eidenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jamison, Kennerdell, Emlenton, Tiona, Lacy and Kinzua districts. Price depends on length of pipe line haul to plant at Oil City.	1.62

TIDE WATER PIPE CO.
(Effective October 3, 1932)

Bradford, Pa.	$1.72
Allegany, N. Y.	1.72

PURE OIL CO.
(Effective October 3, 1932)

Cabin Creek, W. Va.	$1.37
Bradford Hollow, W. Va.	1.37
Kelly's Creek, W. Va.	1.37

Middle Western States

OHIO OIL CO.
(Effective December 16, 1932)

Lima	$1.00
Wooster	.95
Illinois	.87
Indiana	.52
Princeton	.87
Plymouth	Shut in
Western Kentucky	.82
Midland, Mich. (Dec. 31, 1932)*	.85
Muskegon (July 14, 1932)†	.....Mid-Continent gravity scale
Muskegon (June 30, 1932)‡	.95
Somerset, Ky. (Dec. 19, 1932)	.65
Hart County, Ky. (Dec. 21, 1932)§	.85

*Posted by Pure Oil Co. Old Dutch Refining Co. pays 20 cents per tarrel over Pure Oil Co.'s posted price. †Naph-Sol Refining Co. ‡Old Dutch Refining Co. §Posted by Stoll Refining Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and delivered through own pipe line.

Mexico

Panuco*	$ .45

*F.o.b. ship, based on November transactions and exclusive of production and export taxes and bar dues.

Canada

Ontario (Nov. 3, 1931):	
Petrolia*	$1.90
Oil Springs*	1.97
Alberta (Apr. 22, 1932):	
Turner Valley†:	
Crude oil 40-44.9	1.56
Crude oil 45-45.9	2.18
Crude oil 50 and above	2.80
Crude naphtha	3.32
Discolored naphtha	3.06

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Organize Company to Take Over Fred G. Clark Company

CLEVELAND, Ohio, Dec. 31.—Harry R. Lewis, president of Conewango Refining Co., of Warren, Pa., announced this week that a new corporation incorporated under the name of "Hyvis Oils, Inc.," has acquired all of the outstanding capital stock and bonds of Conewango Refining Co. and has also acquired from Fred G. Clark, Inc., the trade mark "Hyvis" for motor oils and lubricants, together with the business of marketing all Hyvis products. The new company will market the Hyvis products through distributors and agencies throughout the United States.

Mr. Lewis, who continues as president of Conewango Refining Co., and who will be actively identified with the management of Hyvis Oils, Inc., further announced that Conewango Refining Co. will continue its present sales policy of furnishing lubricating oils in tank cars to marketers throughout the United States. The company's refinery is located at North Warren, Pa.

Late Fields

KANSAS

Lario Oil & Gas Co. and Shell Petroleum Corp.'s No. 1, in Section 34-21-3w, McPherson County, is estimated at 50 bbls. of oil an hour from the Hunton lime at 3,472-74 feet. This well extends the production in the Mabee Pool a half mile to the east.

Derby Oil Co.'s No. 3 Neufeldt, SE cor. SW Section 21-21-3w, in the southeast extension of the Voshell Pool, in McPherson County, found only a showing of oil in the Viola lime, and was drilling deeper at a total depth of 3,465 feet. The top of the Viola lime was found at 3,435 feet.

Keys Brothers' No. 1, in the SW SE Section 21-19-1w, on the Canton townsite, on the east edge of the Ritz-Canton Field, in McPherson County, was drilling deeper to the Viola lime at 3,125 feet.

Sinclair Prairie Oil Co.'s No. 1 Turgeon, C NE NW Section 3-16-12w, Barton County wildcat, was drilling near 3,200 feet and was planning to land the 8-inch casing soon. The pay is expected at 3,330 feet.

E. K. Carey and others' No. 1 Regier, NW cor. SE Section 30-22-3w, Harvey County, was having trouble shutting off the water at the top of the chat at 3,205 feet. It is located about a half mile south of production in the Hollow Pool.

Shell Petroleum Corp. and others' No. 2 Neufeldt, NW cor. SW SE Section 16-21-3w, in the Voshell Pool, McPherson County, found a showing of oil in the Simpson sand. The oil rose 800 feet in the hole and the crew was moving the boiler back preparatory to drilling deeper.

W. C. McBride, Inc.'s No. 2, in the NW cor. SE Section 30-22-3w, Harvey County, which found a showing of oil in the chat at 3,212-68 feet, was preparing to drill deeper to the Hunton lime.

Roth & Farout's No. 1 Craig, SE cor. Section 2-32-3, Cowley County wildcat, found the Siliceous lime at 3,363-90 feet, where a showing of oil and water was found. It may be abandoned.

Skelly Oil Co.'s No. 2, SE cor. Section 19-22-3w, is a new location, a twin to the No. 1 which is producing from the chat formation. The No. 2 will be drilled to the Hunton lime.

OKLAHOMA

In the west Holdenville area of Hughes County, Milam and Capshaw's No. 2 Holmes, SW cor. SE SW, Section 11-7-8, found a new pay horizon at 2,433 feet, which yielded a showing of oil and gas. The 6-inch casing was being landed.

Sinclair Prairie Oil & Gas Co.'s No. 1 Narcomie, NW cor. SE SW, Section 9-7-8, started swabbing after drilling out the cement plug in the Booch sand at 2,976-87 feet. The well originally was a 47,000,000-foot gas well that was drilled deeper in search of oil.

Phillips Petroleum Co.'s No. 2 Jacobs, SE cor. NE NE, Section 16-7-8, is a new location, a quarter of a mile south of the No. 1 Jacobs, which was recently completed for 112 bbls. of oil in 10½ hours and 24,000,000 feet of gas a day.

Oils Investment Co.'s No. 1 Barber, SW cor., Section 4-8-6, on the east edge of the Mission Pool, in Seminole County, found the Viola lime at 4,100 feet and have cemented the casing at 4,120 feet. It is a twin well to another test drilled by the Carter Oil Co. which was abandoned at 4,923 feet.

Phillips Petroleum Co.'s No. 1 Roly, NW cor. SW SW NW, Section 2-11-3w, in the north end of the Oklahoma City Field, flowed 1,171 bbls. of oil in one hour and was shut in. The 9-inch casing was cemented at 6,270 feet and the total depth is 6,350 feet.

Inland Development Co.'s No. 1 Wisconsin, SW cor. NW SE, Section 22-11-3w, in the southwest part of the Oklahoma City Field, took its initial production test and made 1,302 bbls. of oil in two hours and the gas was estimated at 10,000,000 feet a day. The 7-inch casing was landed at 6,468 feet and the total depth is 6,585 feet.

Details of Loan to Mexican Government by Three Exporting Oil Companies

By CHARLES E. KERN
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Jan. 2.—Details of the conditions on which oil companies have loaned $7,000,000 to the Mexican government, as an advance in the payment of taxes, are now for the first time available in this country. The negotiations leading to this loan make an interesting narrative covering a period of several months.

On one hand, the oil companies insisted on modifications of Mexican taxes as a condition precedent to their co-operation and officials of Mexico explained that their need for cash was not the result of an unbalanced budget but was to afford assistance in carrying out the Mexican program of social and material improvement, loans to agricultural and industrial interests.

The proposed advance of this loan was for from $7,000,000 to $10,000,000, but the amount agreed upon was $7,000,000 (United States currency) to be advanced through subsidiaries of the Standard Oil Co. (New Jersey), the Consolidated Oil Co. and the Dutch-Shell, specifically named in the negotiations with the amount contributed by each of them as follows:

Pierce Oil Co., controlled by the Consolidated Oil Co., $1,000,000.

Huasteca Petroleum Co. (formerly Pan American Petroleum Co.) now controlled by the Standard Oil Co. (New Jersey), $3,000,000.

Cia. Mexicana de Petroles, "El Aguila," South America (subsidiary of Dutch-Shell), $3,000,000.

When the negotiation of this loan was initiated by the Mexican government it was expected it would be for $10,000,000 which would have included the amount owing by the Mexican government to the Standard Oil of California which is about $2,500,000 out of an original loan of $2,800,000, but that arrangement was not made effective.

The amounts of the loans here stated were deposited in the Bank of Mexico.

The amortization of this loan will be at the rate of $175,000 a month, plus interest. The first interest payment will be $26,250 and the last interest payment will be $656. The net interest charges for the whole operation will be $538,125.

Advanced on Taxes

Specifically the oil companies have made this loan as an advance of taxes levied on petroleum by the Mexican government. In the terms of the agreement the loan is to be paid "by monthly advances of the taxes, surcharges, fines and guarantees" which will be levied monthly during forty consecutive months beginning December, 1932.

The agreement for the loan specifies taxes on production, on gasoline, consumption within Mexico, in accordance with the income tax law in force, taxes to be issued in the future on petroleum concessions and those following directly or indirectly on the activities of the petroleum industry in Mexico.

The oil companies are to receive interest at the rate of 4.787 per cent per annum, the entire loan to be amortized at the latest on March 25, 1936.

Formerly an export tax on oil was levied by the Mexican government but the elimination of this tax was one of the requirements insisted on by the oil companies as a condition for making the loan. With the export tax eliminated, the revenue against which this advance is made, may be estimated as follows:

Surface tax between 1,000,000 and 1,500,000 pesos (Mexican) a year.

Production tax, from 4,000,000 to 5,000,000 pesos a year.

Gasoline tax from 8,000,000 to 10,000,000 pesos per year.

The total possible revenue from these taxes is estimated to be between 13,500,000 and 19,000,000 pesos a year.

Export Tax Eliminated

The elimination of the export tax is to be made up by a surface tax which it is said will yield about the former amount of the export tax. This surface tax will be on the basis of 20 centavos per hectare.

It is reliably stated that a third requirement on the part of the loaning oil companies was the import tax on gasoline which, it is expected, will be imposed at the rate of about 4 centavos per liter. It is said the effect of this tax will to a large extent curtail importations of California gasoline in all parts of Mexico except the West Coast where transportation may continue to favor the importation of gasoline from California. However, the tax is expected to assist in increasing the output of Mexican refined gasoline.

It is rumored that the California company may erect a refinery in Mexico and procure production through its subsidiary, the Richmond Oil Co., or purchase crude oil from local companies for refining. However, some oil men in Mexico believe that country has an overcapacity in refining, as gasoline consumption declined there from 316,000,000 gallons in 1930 to to 285,000,000 gallons in 1931.

While the Mexican government insists that its loan is not to balance the budget but for welfare purposes there was a deficit of the government of nearly 31,000,000 pesos in the fiscal year 1931-1932 with an additional prospective deficit for the coming fiscal year of 1932 of 11,861,005 pesos which came about in July, 1930, as a result of the agreement to renew the public debt. However, it is stated that the income of the federal Mexican government is showing improvement over last year.

Benefit to Mexico

The Mexican government experts the result of this loan will be beneficial to mercantile and industrial activities throughout the country. Agricultural credit will be extended by the development of co-operative societies for making agricultural loans and agricultural banks will be established to aid farmers in marketing winter crops of vegetables without being placed in the hands of "loan sharks." Foreign markets for agricultural products are to be sought. The needs of Mexican farmers and industrialists, it is said, are now so great as to more than absorb the loan which has now been consummated.

Earl A. Carr Succumbs to Attack of Pneumonia

The death of Earl A. Carr, assistant manager and chief petroleum engineer of the southwest division of the Pure Oil Co., in Tulsa on the afternoon of December 29 has removed from the oil industry one of the leading engineers and a man of fine character. Mr. Carr's death was due to pneumonia following influenza.

Mr. Carr was born in Ohio 39 years ago and graduated from the high school

EARL A. CARR

at Lancaster, Ohio, and later attended Ohio State University where he received his degree as engineer. He was in France with the Thirty-second Division and after his discharge from the Army became affiliated with the Pure Oil Co., for whom he has worked 13 years.

In addition to his widow he is survived by three children, Mary, Emily and Robert. He also leaves his parents, Mr. and Mrs. Charles A. Carr of Sugar Grove, Ohio; a brother, Charles B. Carr of Duluth, Minn., and two sisters, Mrs. Harry Johnston of Two Harbors, Minn., and Miss Alice Carr of Sugar Grove, Ohio.

Funeral services were held at Christ King Catholic Church in Tulsa on Saturday morning and the body shipped to Lancaster, Ohio, for burial.

Boyd Resumes Testimony in Texas Ouster Hearing

AUSTIN, Tex., Jan. 3.—W. R. Boyd, executive vice president of the American Petroleum Institute, testified when the preliminary hearing was resumed in the third year of Atty. Gen. James V. Allred's $17,850,000 maximum penalty and ouster suit against the Institute and 15 oil companies, over adoption of a code of petroleum marketing ethics, that he took the lead in sponsoring this central code, and that there were 51 other codes in effect when it was initiated.

Mr. Boyd testified on cross examination of oil company attorneys before special Commissioner George E. Shelley, in preliminary evidence to be used when the case is brought to trial before District Judge J. D. Moore. It was his fifth week of testimony. He testified the code was drawn up and submitted by committees to the U. S. Attorney General, and to the Federal Trade Commission.

IRAQ CAPITAL INCREASED

The nominal capital of the Iraq Petroleum Co. has been increased by the addition of £700,000 in £1 ordinary shares beyond the registered capital of £5,100,000.

Many Interesting Facts About Oil Accumulation Revealed by Examination of Sands in Place

By L. G. E. BIGNELL
Petroleum Engineering Editor

Data Secured in Oil Mining Valuable to Operators

With interest in the problems of the origin and accumulation of oil in underground reservoirs constantly increasing and the desire for more definite information about the actual appearance of oil sands when exposed by shafts and drifts it is felt that the data herewith presented are timely.

It is believed that many of the older oil fields will receive attention soon, and methods be applied to attempt recovery of an additional portion of the oil remaining in them. To do cleanout and repressuring work efficiently as much information as possible is required.

The experiences related by competent engineers who have sunk shafts and driven galleries and drifts into oil-bearing formations will throw some light upon the conditions of oil in its natural reservoirs. While the data presented are not as complete as desired they should be of some aid to engineers and production men faced with field problems.

With the development of many of the newer phases of petroleum engineering, geology and geophysics, there has been recurring questions arising regarding the origin and accumulation of gas and oil in underground reservoirs. Much work has been done upon this problem and its allied subjects but it is very noticeable that most of the data considered has been based upon observations made at the mouth of the wells, rather than within the reservoir itself. Recently the use of subsurface pressure instruments and bottom-hole sampling devices has enabled the engineer to gather data at or near the reservoir but even under these better conditions it may be assumed that much may happen during the interval required to transport the samples from the bottom of the well to the laboratory for study.

It has been advocated for some time that the petroleum industry might well take steps to sink shafts and open underground reservoirs with the idea that a first-hand study of conditions as they exist at depth will lead to a much better understanding of many of the fundamental principles of oil origin and accumulations, and also give a better knowledge of the action of gas and oil in underground formations.

There is not available a great deal of literature on the subject of mining oil-bearing formations based upon actual work done in shafts and drifts penetrating the underground reservoirs and the following recital of observations made under such conditions gives some data which may be of general interest.

Experiment in North Texas

During the summer of 1925, Roy B. Jones, president of the Panhandle Refining Co., Wichita Falls, Tex., and associates financed the digging of an experimental oil mine on the G. Jennings land in the Electra Field, North Central Texas, and had a shaft sunk on the lease to a depth of 122 feet, penetrating 23 feet of richly saturated oil sand. The work was contracted by E. M. Carter, Tulsa, and at a luncheon meeting of the Tulsa Geological Society recently Mr. Carter told some of his experiences in oil mining.

Some of the statements made by Mr. Carter in his talk were very interesting and gave rise to consideration of many problems in oil accumulation in underground reservoirs and its extraction. Among other things Mr. Carter stated that the oil-bearing formation when first opened was pure white and did not show any trace of oil. It was not until this sand had been exposed to the air for several hours that it began to darken and oil drip from it. This white condition of the sand in place is contrary to the general conception of the underground conditions that exist in sand reservoirs and in searching for some explanation of this phenomena a translation of a book on "Mining of Petroleum by Shafts and Galleries," by Paul de Chambrier, director general of the mines of Pechelbronn, Alsace, France, has been used. The translation was made by Dr. Henry Meier, retired, Centre College, Danville, Ky.

In his talk Mr. Carter explained how they sunk the 9-foot diameter round shaft by usual regular mining methods from the surface to a depth of 99 feet, where the top of the oil-bearing sand was encountered. It was necessary to use explosives because of the hardness of the ground all the way down and it was found that the oil sand itself was so hard that it also had to be shot with flameless powder. As a safety measure, 5-foot drill holes were sunk into the bottom of the shaft as progress was made and in this way any pockets of gas or oil that might be encountered were tapped in advance of shooting.

Before the oil-bearing formation was opened it was anticipated that the crude oil would be visible, but this did not prove to be the case for the sand as encountered was pure white. It did give up some gas but no excessive quantities because it was possible to ventilate the bottom of the shaft by the use of a blower that forced about 1,200,000 cubic feet of fresh air into the hole every eight hours.

As the shaft was continued downward into the oil sand no change in conditions was encountered and no oil began to drip into the shaft until some depth into the full thickness of 23 feet of formation had been penetrated. This was partly due to the fact that extra heavy charges of explosive were used in the holes drilled around the periphery of the shaft. These heavy shots had the effect of compacting and searing the face of the sand forming the sides of the shaft and keeping the oil from escaping.

Oil Seepage

In drilling shot holes into the sand it was noted that the broken material spooned out of the holes was pure white quartz sand when first withdrawn but in a short time after being spread out on the floor of the shaft this sand turned brown. After the shots were exploded and the sand broken into sizes small enough to hoist to the surface it was found that they turned darker and oil dripped from the pieces.

Mr. Jones desired a large sample of this oil-bearing formation for exhibition purposes and Mr. Carter succeeded in breaking out a chunk weighing about 560 pounds. This piece when first broken and hoisted to the surface was pure white. It was taken to Mr. Jones' office in Wichita Falls, Tex., and there placed on a tin tray and it soon began to darken and oil dripped from the surface. This dripping continued for several months, but at all times the interior of the block contained white sand. This was checked by breaking pieces from the surface and they showed stain to a depth of only about 1½ inches and the newly exposed surface would then again darken.

By drilling holes into the interior of the block it was further proved that the sand beyond a distance of about 1½ inches from the face remained pure white for months during which time the surface was dripping oil. The total amount of oil that escaped from this piece is not known, but based upon an average weight of sandstone being 145 pounds per cubic foot this piece contained about 4 cubic feet of material. This does not indicate the oil contents but it will be well to keep this figure in mind to compare with results observed in Pechelbronn that will be cited later.

These statements by Mr. Carter created discussion among the geologists hearing them and it was stated that cored samples from the Wilcox sand of Oklahoma City Field were very light when first withdrawn from the hole but later turned black and dripped oil. Other well cores have been noted as apparently dry at the well and when examined 10 hours later in the laboratory have shown definite evidence of oil. Many cores have "bled" for weeks after being stored in the laboratory that showed little evidence of oil when first recovered.

Underground Conditions

The popular conception of underground conditions in an oil-bearing structure is that the gas separates out and occupies the upper portion of the reservoir with the oil and included gas lower down dip and the water in contact with the oil still further down the slope of the structure. These conditions may be correct for a true anticlinal type of structure, but in the Electra Field the oil-bearing sand lies nearly horizontal and in Pechelbronn fields there is slight structure but the dip is not enough to create conditions such as found in many fields in this country.

In his description of mining of petroleum at Pechelbronn, Mr. de Chambrier states that the production of oil by means of shafts and galleries was inaugurated in 1735 for the extraction of bituminous sand, and in 1917 the Germans expanded upon this work and caused shafts to be sunk to a depth of from 500 to 820 feet to recover crude oil from depleted sands because of the great demand created for petroleum products during the war.

At the beginning of the year 1916 the management at Berlin of the Deutsche Erdöl A. G. (German Petroleum Stock Co.), which owned Pechelbronn, granted a credit of 1,000,000 marks and ordered the work of sinking the first shaft to be begun at once.

The shaft sinking was entrusted to professional miners who had come from Westphalia and the shaft was sunk at the rate of from 65 to 98 feet per month in an opening of 4 meters (13.123 feet) diameter, which included the actual shaft sinking and lining of the walls with brick and concrete.

The following is quoted direct from the translation of de Chambrier's work and is interesting in that it checks with the

Crude Price Should Determine Price of Refined Products Says H. F. Sinclair

By H. F. SINCLAIR
Chairman, Executive Committee, Consolidated Oil Corp.

A sense of realities is all anyone needs for an appraisal of conditions in the oil business—or in the world. Most people have spent the past three years trying to make themselves believe that there was some formula or turn of some kind that would restore the production, profit and stock quotation figures of the peak of inflation. They have been disappointed.

The oil business has less excuse than any other for its troubles. The decrease in output has been slight in comparison with any other industry. But artificial restriction, known as proration, has failed us. We have restriction of a kind, but no reward for it. Proration no more effectively restricts than prohibition prohibits. It creates the same army of bootleggers, the same evasions and the same administrative evils that prohibition brought into being. We are scrupulously observing the laws and rules of proration, but are under no illusions as to its results.

For the time being the obviously sound principle that the raw material (crude) price must determine the finished product price has been abandoned. We are at the moment in the vicious circle of successively lower crude prices followed by lower product prices. Carried to its logical conclusion this ends at zero for both crude and refined products. For this reason a reversal of the process is sure to come.

Our business must be built up from the bottom, not from any artificially maintained level, or one that is not in accordance with present-day values and conditions. Nations and individuals are not comfortably lifted out of bad times. They must dig themselves out. That is why the process of deliverance seems so slow. Our own particular unit of the oil industry is not looking for any formula for relief—governmental or otherwise. But we are confident of our ability to dig our way out, wasting no more time in search of rainbows.

statements made by Mr. Carter about the conditions found when the shaft actually entered the oil-bearing formation.

"The rapid ascent to the surface of the personnel in cases of danger was assured, and strong fans on ventilators, capable of blowing 3,000 cubic meters (105,942 cubic feet) of air per minute, guaranteed good ventilation. Then drainage pumps and all kinds of necessary safety and rescue material was made available in order to safeguard against all happenings."

This indicates quite clearly that they were anticipating encountering large volumes of gas and creating unfavorable conditions for the workmen when the oil-bearing formation was reached, but note what actually took place.

"When the shaft reached the bed, it was considered strange that neither violent gases, nor, what was even more serious, the expected oil was not found there in abundance.

"It was, however, decided to dig galleries into a bed of bituminous sand, the height of which varies from 2½ to 3 meters (8.20 to 9.84 feet). At the end of several days, oil was seen oozing out everywhere. After three months of working forward in the galleries, the value of the crude oil which had flowed out by simple seepage had amply covered the expenses of digging."

Pechelbronn Mining Conditions

The report of mining in Pechelbronn states that the beds or layers worked were from a half to 3 meters (1.64 to 9.84 feet) thick, which permits digging the forward galleries into the sand between hanging and foot walls.

"This sand, very compact and saturated with oil, is not crumbly and may be classified as belonging to the stable earth formations, the more so as the 'roof' or rock resting on top of the ore or mineral is composed of a compact and very resisting marl or clay which simplifies the the work of propping. Moreover, up to now (1921), no water-bearing structures or layers have been encountered."

Under the sub-heading, "Moving the Oil," the de Chambrier report states:

"The oil which flows from the sides of a cut, made into a layer of oil-bearing sand, oozes out very rarely along the whole vertical side of the well. With a layer having a slight slope and of an average thickness of 2½ meters (8.20 feet) one sees the oil ooze out up to a height of 50 to 70 centimeters (19.68 to 27.55 inches). One might expect that a porous bed or layer would not be saturated up to its top, after having been exhausted, during years with crude oil pumps. However, this apparent height does not correspond at all to the law of equilibrium of liquid in the stratum.

"Let us only note in passing that the flow of the oil is very slow in sand entirely compact and more or less hardened with clay. In consequence of the hydrostatic pressure, the velocity of the flow of crude oil will be much greater at the bottom of the bed than half way up.

"In the rock situated behind the face of the cut, the liquid, under the influence of its own weight, is prompted to descend vertically so as to join the flow which is started above the wall. Finally the action of the gas contributes considerably to the flow of the oil. The resultant of these forces to which the relative impermeability of the layer of sand opposes itself brings about, that the surface of the petroleum in motion, describes a parabolic curve."

In describing his work at Electra, Mr. Carter states that he noted that the flow of oil from the face of the sand where it was exposed in the shaft began when the surface hardened by the effect of the explosions had been cleared away.

Got 80 Bbls. per Day

From the freshly cleaned face of the sand the oil appeared in a myriad of tiny bubbles filled with gas and expanding as this gas escaped from the rock. The bubbles would grow in size until two or more would join and a drop of oil would form and by its own weight start to flow down the face of the sand and in this way crude oil to the amount of about 80 bbls. per day was collected from the sump at the bottom of the shaft and pumped to the surface.

The oil flowed for a short period and the tiny openings in the sand were then sealed over, especially at the upper part of the open sand face, and the oil would cease to accumulate. During the shaft sinking it was noted that the concussion from the shots exploded in the bottom of the shaft broke this film that had formed on the sand face and oil began to flow again.

It was further noted that the film was broken at times by the building up of gas pressures back of it and when this gas pressure was great enough it would force thin slabs of the film away from the sand. These slabs would slide to the bottom of the shaft and the oil would again begin to flow from the freshly exposed sand face.

In the de Chambrier report it has this to say about similar observations made in their mine in Pechelbronn:

"In following the galleries (tunnels) as far as the head of the cutting, it is very interesting to study the appearance of the stratum. The sand shows itself as a brown or black mass, which seems almost dry; but it is still very oily, of which one can easily be convinced by touching it. It is only at the lower part of the bed that the oil can be seen slowly oozing out, with the liberation of almost imperceptible bubbles of gas. The quantities which flow down in this way disappear in the sand, which a short time ago was cut down by the miner's picks, and then collect in the underground canals. This seepage of a liquid, as black as the ground upon which it drips, is scarcely perceptible and does not at all give the impression of an abundant production.

"The visitor is very much surprised to learn that a gallery of a cubic content of about 5 cubic meters (176.572 cubic feet) produces about 11 tons (69.245 bbls.) of crude oil for every meter (3.28 feet) advancement.

"The oil-bearing sand, far from being always homogeneous, is often intersected by horizontal clay deposits, a few centimeters in thickness, situated along the stratification of the packed in beds. Generally a single bank of light gray colored clay is seen, acting as a partition wall, which divides the stratum into two distinct levels, and sometimes even into two zones of superposed seepage.

"The composition of the sand is far from homogeneous. At one place the fine sand predominates, at other places it is an accumulation of very coarse sand, but in general both are mixed without any regularity, and often mingled with loam.

"The amount of loam in the mixture varies very much; it is between 5 and 40 per cent; the results of a large number of samples furnishes an average of from 15 to 20 per cent. Often the clay is of the nature of marl, as is indicated by the reaction of hydrochloric acid.

"The few observations made up to the time the report was written had not justified the establishment of fixed relations between the size of the grains of sand, their percentage contents of clay or marl, and their richness in oil. Nevertheless, the tests made in 1914 and 1915 as to the porosity of the sands of Pechelbronn show that the samples which were the most laden with earthy matter were also those which held, due to adhesion, the greatest amount of oil. These impurities in the sandy deposits are a cause for retardation in the flow of the oil in the layers.

Theory of the Seepage

"The mobility of the crude petroleum in the ground is one of the subjects of most importance to be studied in reference to extraction by means of wells or by means of shafts and galleries. The entire theory of the anticline rests upon the faculty which the oil has of lifting itself up into the domes by permitting the water to gather in the synclines. It is due to the pressure of the gas, with which they are saturated, that the natural hydrocarbons gush forth in jets from the depths where they are located, or that they are pushed toward the wells, which permits of their extraction, or, finally, that they emerge from the rocks manifesting themselves on the surface.

"If we think of a sheet of water, underground and in a state of rest, located in a gravelly structure, we would not doubt but that its surface would be regularly level, and this without speaking of the capillarity which has a tendency to moisten the underlying rocks. By analogy we would likewise expect that in a bituminous layer, two beds, to differ in gas and in oil. Now this is, in our opinion and experience, somewhat otherwise. The gas is dissolved in the petroleum and this in an increased amount, proportioned to the increase of pressure under which the gas exists."

The report next compares pressures in wells in the United States and Galicia and speculates upon the amount of gas that was in solution in the oil as it occurred in the reservoirs. After considerable discussion of the occurrence of oil and gas underground, Mr. de Chambrier describes an interesting test made in Pechelbronn which is quoted below:

"To estimate the resistance set up in the sand by the loss of gas from the oil the following test was made: Into the face of a cut in a gallery of very feeble output of oil, a horizontal drill, about 3 meters (9.84 feet) long and 30 millimeters (1.182 inches) in diameter was made. Into this hole a tube, about 25 mm. (.985 inches) diameter and 2 meters (6.56 feet) long was inserted and carefully cemented 50 cm. (19.67 inches) from the opening. Then the free end of this iron tube was provided with a water gauge. The gas could thus collect in the horizontal drilling and then pass freely on the outside of the tube up to 50 cm. from the face of the cutting, from which it was separated only by a very fine partition of sand of the bed. The observed results were then as follows:

Duration—	Water pressure	Lbs. per sq. in.
1 minute, pressure at beginning	120 mm. (4.728 in.)	.17022
2 minutes	180 mm. (7.092 in.)	.25585
3 minutes	230 mm. (8.668 in.)	.31250
4 minutes	240 mm. (9.456 in.)	.34100
10 minutes	320 mm. (12.608 in.)	.45467
60 minutes, constant pressure	360 mm. (14.184 in.)	.51169

Resistance of Sand

"These figures give us first a measure of the slowness of the liberation of gas in an exhausted bed, then they give evidence of the unexpected resistance which the sandy beds offer to the passage of the fluids. If it takes a pressure of water at 360 mm. to permit the gas to seep through only 50 c.m. of sand, it may be judged, what difficulty a viscous fluid,

President W. S. Farish Hopes New Year Will See Supply Balancing Demand

HOUSTON, Tex., Dec. 30.—In continuing the efforts to solve its problems, this country will not take to general or extensive inflation, but will pay its debts "with hard money even though this course carries us through wholesale bankruptcies and scaling down compromises," asserted W. S. Farish, president of the Humble Oil & Refining Co., in a year-end statement.

"This decision results in part from the unwillingness of our financial authorities to hazard the danger that inflation, once entered upon, might defy control and go too far. But it is also in some part, a reflection of the naturally conservative attitude of our banking fraternity and of the fact that many of our liabilities are payable in gold and are, therefore, not affected by common forms of inflation.

"As the year 1932 closes it becomes increasingly apparent that this country, if not the world at large, confronts as its immediate and perhaps its most important problem, the adjustment of debts, both private and national. Moreover, it now becomes fairly evident that of the two possible solutions of the debt problem, namely inflation on the one hand, as opposed to straightout liquidation on the other, this country has made its choice and will pursue the latter course."

Oil Industry's Position

Concerning the oil industry, Mr. Farish expresses the hope that the coming year will see the industry in control of crude oil supply and with output in balance with consumptive requirements.

"The fundamental difficulty with which we had to contend in 1932," he said, "continued to be the overproduction of crude oil. Over the last four years this problem has continuously engaged our attention, and we are still struggling with it as 1932 closes.

"In spite of the import tax on crude oil and products which became effective last July and thereafter shut out most of the imports that had harassed us, we are still unable to curtail our current production of crude oil to the reasonable market demand.

"We have suffered a moderate loss of markets for our principal product, gasoline, the 1932 demand having been about 9 per cent less than in 1931. The pressure toward market of heavy inventories of crude and products, together with the determination of distributors not to surrender gallonage in spite of the lessened total demand for gasoline, has served to depress wholesale gasoline prices to unprecedentedly low levels.

"At the same time crude oil prices have been maintained at an unjustifiably high level, from the standpoint of the refiner who has purchased his crude at the average posted price. The prevailing gasoline prices have not permitted a profit to the refiner who paid the average posted prices for his crude.

Reserves Only Adequate

"No important discoveries of new oil reserves are recorded for 1932. And the preceding year witnessed only a small number of important discoveries. Therefore our petroleum reserves are not themselves burdensome; indeed, they are hardly more than adequate, the proven reserve being equal in volume, perhaps, to our anticipated requirements over the next 10 years.

"High prices for crude during the past year have resulted from attempts to reward the producer for curtailing his output. In spite of these high prices, however, production has not been sufficiently curtailed and throughout the year demand has uniformly furnished a market for all the crude offered for sale.

"As the year ended the artifically maintained crude prices became finally intolerable and the whole price structure toppled. We seem to have learned at length that crude oil prices cannot be maintained at a higher level than product prices justify, however much we may wish to reward the producer for his sacrifice in curtailing his production.

"This really is our only fundamental problem and if we could solve it our incidental ills would, in large measure, be cured. We have made much progress in our efforts toward this end, and we enter the new year on firmer ground than we have ever previously occupied. We have new, more adequate laws, and we have a more comprehensive background of experience. Whenever we do succeed in controlling crude output we shall be in a position to put our industry on a basis of reasonable profits, and until we do succeed in controlling crude output either through curtailment or through actual scarcity of supply, we cannot have enduring prosperity in our industry."

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like oil, may have in flowing hundreds of meters in order to reach a well. We are not certain whether the packing was perfectly air-tight along the whole length of 50 c.m., likewise these figures cannot be taken as a basis for the calculation of the gas at a greater distance; but it can be assumed, that at about 10 meters (32.8 feet) from the face of the cutting, the pressure reaches several atmospheres.

"The seepage of oil from the faces of the cuttings is not just a temporary phenomena; its production continues for months, gradually decreasing in intensity, if the work of forwarding digging is interrupted. Even if the latter are continued without stopping, the flow of oil will continue on the side walls of the tunnels for weeks and months, and yet it is impossible to formulate any rule for this flow. At certain places, very small seepages have been observed in tunnels dug three years before. The height of the oil bed is almost constant only in certain elongated tunnels, which follow for a long distance the direction of the bituminous strata. In the downward slopes this height is considerably greater than in the upward grade, at times it is equal to the entire thickness of the layer. This case, which, however, is very rare, is not as one might believe, always considered as favorable; it seems to indicate that the lower end of the beds has been reached.

"On the other hand, on taking up again the work, which was abandoned some months before, due to accident, a strangely decreased output was noticed. It was then necessary to dig rather far to find the current of oil again. Another cause of the irregularity of production in the works comes from the zones of geologic disturbances, which intervene in the arrangement of the beds at Pechelbronn. Suddenly interrupted by a mass of clay, the petroleum bearing strata are found again at from 20 to 30 meters farther on, and often, even at a different level. Yet their thickness of from 2½ to 3 meters, and their slope of from 5 to 6 degrees is not greatly changed on that account. It appears like as if a wave of mud had come to push itself into the deposits of bituminous sand while the latter was still in a state of formation, or that the ground had suffered a disturbance later, than at its time of stratification."

Contents of Oil in Sands

The report next deals with a study of the contents of oil in petroleum bearing sands and three questions are asked:

"1. What is the power of absorption of the sand?

"2. How much oil can escape by seepage in the tunnels?

"3. What proportion of oil remains clinging to the sand after the drainage caused by this way of extraction?

"The percentage contents of saturated sands is rather constant, as it varies between 12½ and 13 pounds to the hundred; but it is different with drained sands. A sample taken from a part not seeping at the face of a cutting, of good production, shows a general proportion of from 8 to 8½ per cent. On the other hand in the workings of small yield, this figure may fall to 5 per cent. In order to obtain information, to a certain extent, as to the limit of drainage of the strata, the manager of the shaft had, in September, 1920, taken a large number of samples from former workings in tunnels, and had them analyzed. With the results varying between 3 and 8 per cent the average of these tests furnishes 4.8 per cent, a very important figure which is used in calculations of yield.

"It remains for us yet to mention a very strange and very instructive and also exceptional case. A new cut had been dug in the vicinity of an old well, and in a section formerly rich in oil and gas, but drained by drainage tunnels. At a distance, in the cut, of about 10 meters (32.8 feet) there was encountered sand completely dry and crumbly, which contained not more than from 0.7 to 1.4 per cent of oil, but which was still saturated with gas. It would thus appear that the gas has the property to disencumber the sand, almost completely of its oil. Let us also observe that this bed was not water bearing, and that its contents of clay was very small, only 5 per cent. It is probably not due to methane alone that this dissolving action has taken place, but rather to the vapors of kerosene (gasoline) which accompanied it.

Various Observations

"After having spoken of the oil bearing earths of the principal shaft at Pechelbronn, it now remains for us to speak a few words about the strange phases which certain parts of the structure present. In examining the cross section of these beds, certain designs in the forms of volutes or spiral scrolls were noticed, which seem to prove that the sand, while being deposited, underwent shiftings along its entire depth.

"Moreover, the deep-running (or packed) strata do not present any analogy with these designs; it is therefore not possible to attribute phenomena of shifting, subsequent to the period, when the sand was deposited.

"Everything leads to the belief that the sandy sediment became deposited very rapidly, or in other words that they are river or lake deposits. Thus in certain places, there were taken out of the tunnels conglomerates from 10 to 15 c.m. (3.9 to 5.9 inches) in diameter, which could not have been carried there except by a very strong current of water.

"It remains yet to be pointed out that in several cuts, lignified (?) (petrified) wood was discovered, sometimes even large pieces. The most important of these, which had a diameter of almost 40 c.m. (15.75 inches) was lying in the direction of the beds.

"Two other specimens of wood, the one soft and the other hard, were also recovered."

The report by Paul de Chambrier is of considerable length and covers many other details concerning oil mining and points out that there are many things that can be best learned by actual sinking of shafts and underground exploration. It would seem that if the advice offered as to the advantages of oil mining were true in 1921, when the report was written, they should be more applicable today and by doing this kind of work many facts regarding underground conditions can be secured that will prove of great advantage to the industry in the future.

Judge Ames Reviews Industry's Progress Made Toward Better Understanding

By C. B. AMES
President of American Petroleum Institute

The year 1932 has been a testing time for the petroleum industry in all of its divisions, just as it has been for other pursuits. The tests that have been faced by producers, refiners and marketers of petroleum products have been met with rare courage and fortitude. Profits of course have not been satisfactory, but the petroleum balance sheet for 1932 presents a more optimistic picture than did that of 1931.

Perhaps the most conspicuous improvement in the position of the industry was in the intangible field of "better understanding." It was a year that marked a distinct advance in the treatment by state legislative bodies of a great natural resource and its conservation. Not only did legislators come to have a better understanding of the problems of the industry as it affects the welfare of their constituents, but the people themselves, particularly in producing territories, have shown increasing interest in conservation. Further evidence of a growing spirit of co-operation was shown in the activities of the members of the Oil States Advisory Committee representing 10 oil-producing states.

Some of the significant developments in the petroleum industry during 1932 are as follows:

(a) In May the Supreme Court of the United States upheld the Oklahoma statute which, in order to prevent waste, limits the production of crude oil to the reasonable market demand.

(b) In October the legislature of Texas passed a statute similar to that in Oklahoma, the validity of which is established by the decision of the Supreme Court in the Oklahoma case.

(c) There has been distinct progress in co-operation between the oil producing states in the development of a sound conservation program. Material contributions to this movement have been given by the Federal Oil Conservation Board, the Utilities Commission of Kansas, the Corporation Commission of Oklahoma, the Railroad Commission of Texas, and the Oil States Advisory Committee.

(d) There has been a growing realization that the sales tax on gasoline has exceeded all reasonable bounds and that this burden on the motor car users is diminishing consumption of gasoline, thereby injuring both the petroleum and the motor car industries, reducing employment and contributing to the depression. The only just basis for the gasoline tax is support of the highway system, yet this tax is being diverted to various other uses and is so heavy that a premium is put upon evasion.

(e) The Federal Government for the first time has imposed taxes on gasoline and lubricating oils for general revenue purposes. This is a distinct invasion of a field of taxation which belongs peculiarly to the states, and while it is producing some revenue, it is placing an undue burden upon a limited portion of the population.

(f) Strengthening of the conservation movement and alleviation of these tax burdens will greatly assist the petroleum industry in making 1933 a better year than 1932.

Thurman Hill Proposes Oil Advisory Meeting

TOPEKA, Kans., Dec. 30.—Plans for a meeting of the members of the Kansas, Oklahoma and Texas oil regulatory bodies in Oklahoma City January 20 to discuss uniform conservation rules for 1933 were announced today by Thurman Hill, member of the Kansas Public Service Commission.

It is proposed by the Kansas commission to invite the members of the Texas and Oklahoma commissions to attend the conference. Invitations will also be sent to Marvin Lee of Wichita, Kans., chairman of the Kansas commission's oil advisory committee; Cicero Murray, representative of Governor Murray of Oklahoma, and Carl Estes of Tyler, Tex., president of the East Texas Producers and Royalty Owners' Association.

From Austin, Tex., comes word that the Texas Railroad Commission did not intend to have any part in the proposed interstate oil compact meeting. Ernest O. Thompson, railroad commissioner, declared he had not heard of any invitation. If and when it was presented, he said, it would be declined by the Texas commission.

It was reported here that Carl Estes, Tyler publisher, had already been selected as the Texas representative.

In the meantime, revised oil-proration orders have been issued by Texas and Oklahoma, effective January 1, giving the two areas an aggregate allowable of 1,143,153 bbls. daily.

The total production of the fields in Texas is limited to 757,150 bbls. daily, a reduction of 31,850 bbls., while the Oklahoma Corporation Commission has fixed the allowable for that State at 386,003 bbls., a very slight increase for January over the December figures. Production in the Oklahoma City Field has been fixed at 74,333 bbls. daily.

Injunctions Have Halted West Texas Enforcement

(Continued from Page 11)

same shall be computed according to Reid's open flow tables.

Natural gas artificially introduced into an oil well for use in "gas-lift" operations shall not be used for any other purposes than the uses prescribed by law and the orders or permits of this commission. Special permits may be granted for the use of natural gas in quantities for gas-lift operations not to exceed 5,000 feet per barrel of oil or 10,000 feet per barrel of oil and water.

Casinghead gas shall not be produced from any oil well except with the oil and at such gas-oil ratios as do not exceed the ratio that is established by rules of the commission. This rule does not apply to casinghead gas produced through the annular space between the tubing and the casing of a pumping well during pumping operations.

Gas-Oil Ratio

Except as specifically provided a gas-oil ratio in excess of 25,000 feet of gas per barrel of oil is the fixed rate. This rule does not prohibit or limit the production of "natural gas" from the bradenhead of a well equipped to produce oil and "casinghead" gas from one horizon and "natural gas" from another, so long as said "natural gas" is produced and used in such manner as not to conflict with the law or the permits, rules and regulations of the commission.

Wells now producing gas and oil with a ratio in excess of 25,000 feet of gas per barrel of oil, but less than 500,000 feet and able to dispose of their gas production to a natural gas plant shall be permitted to produce in excess of 25,000 feet of gas per barrel of oil, but in no event shall any individual well be entitled to produce a larger volume of gas with its oil than necessary to secure to it its ratable proportion of the amount of gas in excess of 25,000 feet per barrel being processed at the natural gasoline plant without surface wastage into the air. In no event can any well produce in excess of 75 per cent of its open flow capacity. A plant shall be permitted, at the discretion of the deputy supervisor, to release to the air the minimum amount of gas to provide the flexibility necessary in supplying residue outlet and such release to the air shall not be construed as surface waste.

From time to time the deputy supervisor shall determine the volumes of gas to be produced with the oil as to each well falling under the classification of an oil well produced by gas-lift. Also the daily volume of gas escaping into the air from all wells in this district shall be determined monthly. All residue gas going into the air from natural gasoline plants shall be metered and report of the daily volume shall be made monthly to the commission.

No new connections to wells from natural gasoline plants shall be made without permission of the deputy supervisor. No gasoline plant shall take or process any gas produced in violation of or in conflict with the rules of the commission.

The order is issued to prevent and minimize the physical wastage of gas and the commission reserves the rights to grant exceptions to these rules after a hearing and as rapidly as the facts can be determined in order that the possibility of such physical waste as might resonably be expected to result from the continuance of any improper gas-oil ratio that might exist may be prevented in an adequate manner.

DISCUSS ARGENTINE REFINERY

Discussions have taken place recently among companies marketing petroleum products in Argentina, but not having refining and producing plants there, relative to the adoption of a plan to avoid the payment of the heavy import levy on petroleum products into that country. One plan includes the construction of a refinery, but unless some guarantee can be obtained as to the country's future tariff policy on crude it is considered unlikely it will be adopted.

Recommended Changes in Standards for Fuel Oils

(Continued from Page 21)

and fibrous or other foreign matters likely to clog or injure the burner or valves. Grades 5 and 6 shall be hydrocarbon oils, free from grit, acid, and fibrous or other foreign matters likely to clog or injure the burner or valves. If required, the oil shall be strained by being drawn through filters or wire gauze of 16 meshes to the inch. The clearance area through the strainers shall be at least twice the area of the suction pipe, and the strainers shall be in duplicate.

In the accompanying tables the numbers appearing in the first column, under the heading "Grade of oil," should be referred to the following explanations:

No. 1—A distillate oil for use in burners requiring a volatile fluid.

No. 2—A distillate oil for use in burners requiring a moderately volatile fluid.

No. 3—A distillate oil for use in burners requiring a low viscosity fuel.

No. 4—An oil for use in burners requiring a low viscosity fuel.

No. 5—An oil for use in burners permitting a medium viscosity fuel (Bunker B, Fed. Spec. 2d).

No. 6—An oil for use in burners permitting a high viscosity fuel (Bunker C, Fed. Spec. 2d).

Methods of Test

Flashpoint

3. Minimum — The flashpoint, instrument, and method for determining minimum flashpoint shall be that legal for the locality in which the oil is sold. In absence of legal requirements, the minimum flashpoint shall be determined in accordance with the standard method of test for flashpoint by means of the Pensky-Martens closed tester as in American Society for Testing Materials D93-22.

4. Maximum—Standard method of test for flashpoint by means of the Pensky-Martens closed tester as in American Society for Testing Materials D93-22.

Water and Sediment

5. Standard method of test for water and sediment in petroleum products by means of centrifuge as in American Society for Testing Materials D96-30. (See Tables 1 and 2.)

6. Standard method of test for water in petroleum products by means of distillation and extraction as described under method of American Society for Testing Materials D95-30, while the standard method of test for sediment shall be as described below. A deduction in quantity will be made for all water plus sediment in excess of 1.0 per cent. (See Table 2.)

(a) Apparatus:

Alundum (porous grade) thimbles, 1 inch in diameter by 2¾ inches high, weighing not less than 15 nor more than 17 grams.

Extraction apparatus of such construction that the thimble is completely surrounded by the vapor of the boiling solvent. Siphon extractors must not be used.

(b) Procedure:

Place approximately 10 grams of the sample in the previously extracted and dried, accurately weighed thimble and weigh to ±0.01 gram, place in the extraction apparatus, and extract with 90 per cent benzol until the solvent dropping from the thimble is colorless. Dry the thimble for 1 hour at 105° C., and weigh to ±0.0001 gram. Repeat the extraction until the weight of the dried thimble and sediment is constant.

(Note—The rate of extraction shall be such that the mixture of oil and benzol in the thimble does not rise to within one-quarter inch of the top.)

Pourpoint

7. Tentative method of test for pourpoints of petroleum products as in American Society for Testing Materials D97-30.

Distillation Test

8. Standard method of test for distillation of gasoline, naphtha, kerosene, and similar petroleum products as in American Society for Testing Materials D86-30.

9. Standard method of testing gas oils as in American Society for Testing Materials D158-28, except as to the procedure in taking readings, which shall be taken as required in these specifications.

Viscosity

10. Standard method of test for viscosity of petroleum products and lubricants as in American Society for Testing Materials D88-30. The A.S.T.M. Viscosity Temperature Chart, Method D341-32T, affords a convenient means for estimating viscosities at temperatures other than those prescribed as standard test temperatures.

References

11. Complete information regarding the procedure for making the tests specified is to be found in the publications of the American Society for Testing Materials, 1315 Spruce Street, Philadelphia.

Significance of Tests Prescribed

Flashpoint

12. The flashpoint of a product may be defined as the temperature to which it must be heated in order to give off sufficient vapor to form an inflammable mixture with air. This temperature varies with the apparatus and procedure employed and consequently both must be specified when the flashpoint of an oil is stated.

13. The minimum flashpoint of oils used for fuel is usually controlled by law. When there are no legal requirements, the minimum values in the table are to be employed. Maximum values are specified in oils Nos. 1, 2 and 3 to insure the required ease of ignition.

Water and Sediment

14. Water and sediment are impurities which are almost entirely excluded in fuel oils Nos. 1, 2 and 3, and which are permitted in somewhat larger quantities in fuel oils Nos. 4, 5 and 6. It is difficult to eliminate them entirely from this latter group of oils, and the advantage is not sufficient to justify the cost.

15. Water and sediment are determined together by the centrifuge, except with fuel oil No. 6, where water is determined by a distillation method, and sediment by extraction with benzol.

Pourpoint

16. The pourpoint of an oil is the lowest temperature at which it will flow under prescribed conditions. Pourpoint specifications are included in order that oil may be secured which will not cause difficulty in handling or in use at the lowest temperatures to which it may normally be subjected.

Distillation

17. Laboratory distillation of a sample under prescribed conditions gives an index of the volatility of the oil. The 10 and 90 per cent points represent, respectively, the temperatures at which 10 and 90 per cent of the sample are distilled over. The endpoint is the maximum temperature recorded by the distillation thermometer at the end of the distillation.

18. The 10 per cent point serves as an index of the ease of ignition of the oil and the 90 per cent point and the endpoint are specified to make sure that the oil will burn completely and produce a minimum amount of carbon.

Viscosity

19. The viscosity of an oil is the measure of its resistance to flow. Maximum limits are placed on this property because of its effect upon the rate at which oil will flow through pipe lines and upon the degree of atomization that may be secured in any given equipment.

20. Viscosity is measured as the seconds required for a definite volume of oil to pass through a small tube of specified dimensions at a definite temperature. Viscosity decreases rapidly as temperature increases, and preheating makes possible the use of oils of relatively high viscosity at normal temperatures. The Saybolt Universal viscosimeter is used for fuel oils of fairly low viscosity and the Saybolt Furol viscosimeter for heavier oils.

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*Recognizing the necessity for low sulphur fuel oils used in connection with heat treatment, nonferrous metal, glass, and ceramic furnaces and other special uses, a sulphur requirement may be specified in accordance with the following table:

Oil No.	Maximum sulphur (pct.)
1	0.5
2	0.5
3	0.75
4	1.25
5	no limit
6	no limit

Other sulphur limits may be required only by mutual agreement between buyer and seller.

Development of Sounder Oil Situation During 1933 Seen by Frank Phillips

By FRANK PHILLIPS
President, Phillips Petroleum Co.

The oil industry is approaching the end of another year of trying times, largely incident to the worldwide general depression. It has made a record of continued progress in the solution of many problems. By and large, notwithstanding an increasing decline in consumption which had been only slightly felt in 1931, the year about to close has shown improvement. The increased stability has resulted from a better balance of supply with demand, both in the raw material and refined products. The producers of crude oil have submitted to proration orders which have brought production below actual refinery consumption and permitted important drafts on stocks of crude aboveground.

Refinery operations have been somewhat excessive, doubtless due to expectation of sustained demand such as occurred in 1931 in the face of drastic declines in other lines of business. The influence of the depression was, however, finally felt to a greater degree in the oil industry and gasoline stocks proved to be excessive. The unexpected conditions were met as promptly as possible by the refiners and the stocks of gasoline and other products, although larger than desirable, are not so large as to preclude the development of a sound economic situation in 1933.

The control of the production of crude by the regulatory bodies in the several states has been strengthened during the year, particularly in Texas where a new law was recently enacted authorizing proration to balance supply with market demand. This should remove fear of a flood of uncontrolled production and create confidence, which is essential to stability.

In view of the conditions above outlined, I believe the petroleum industry may look forward in 1933 to an even better year than the one about to close.

There are many problems still confronting the industry, but the greatest immediate obstacle to its full recovery is demoralization of prices resulting from evasion, by dishonest marketers, of the excessive gasoline taxes. Almost as important in demoralizing influence is the crude oil secretly produced in violation of the law and orders of the state regulatory bodies and sold below prevailing market prices. Consumers should join with the industry in demanding drastic reduction of the outrageous gasoline taxes, and in both cases there must be full and honest enforcement of the laws.

Humphreys Retires as Vice President Indiana

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July, 1900, as a chemist in its laboratory. He came to the plant at Whiting, Ind., after securing a doctor's degree at Johns Hopkins University. In following years he did notable work as a chemist and a research worker and was made chief chemist in 1906. He was transferred in 1914 to executive duties as assistant superintendent of the refinery and was made manager in 1918. In January, 1927, he was moved to the general offices in Chicago as assistant general manager and elected a director. After various promotions he became in 1929 vice president in charge of all manufacturing operations of Standard of Indiana and affiliated and associated companies, which position he has continued to fill.

Doctor Humphreys is known in the oil industry as one of the pioneers in that application of science to manufacturing problems which has placed today's processes and products far in advance of those of only a score of years ago. He was himself one of the first to engage in industrial research in connection with oil. As a coworker of Dr. William P. Burton, he aided in originating the oil cracking process, which practically revolutionized petroleum refining and made it possible for the yield of gasoline from oil to be greatly increased and the price to be cheapened. It is frequently stated that the extraordinary growth of the automotive and related industries in the period from 1912 to 1929 would not have been possible if the cracking process, which Standard at once shared with other companies, had not cleared the way for provision to the public of an adequate supply of motor fuel.

During his connection with the company, Doctor Humphreys has resided continuously in the refinery city of Whiting. In the next several months he expects to travel extensively, with Mrs. Humphreys, in the United States and Canada.

At a luncheon tendered by Edward G. Seubert, president of Standard of Indiana, on Thursday, directors of the company paid tribute to Doctor Humphreys for his long and valuable service and wished him full enjoyment of the leisure afforded by his retirement.

Doctors Paulus and Wilson and Mr. Glair have been connected with the Indiana Standard for several years in various capacities with the manufacturing department. Doctor Paulus before his transfer to Chicago was manager of the Casper, Wyo., refinery of the Midwest Refining Co., a subsidiary. Doctor Wilson joined the research and development in 1922 from the faculty of the Massachusetts Institute of Technology. Mr. Glair, a graduate of the University of Illinois, spent several years at the Whiting refinery where he was manager previous to his appointment as assistant general manager of the manufacturing department.

A. S. ROGERS DIES

CHATHAM, Ontario, Dec. 31.—Albert Stephen Rogers, for many years prominent in the oil industry in Canada, died at Toronto on December 29, in his seventy-third year. A native of Newmarket, Ontario, he began his career with his father, the late Samuel Rogers, in the Samuel Rogers Queen City Oil Works of Toronto, which later, as the Queen City Oil Co., became an outstanding oil distributor in Ontario. After his father's death in 1903, Mr. Rogers, with his brother, the late J. P. Rogers, continued the business. In 1912 the Queen City Oil Co. became the Ontario division of Imperial Oil, Ltd., and Mr. Rogers became a director of the latter company, continuing until his death. In addition to other business interests, he was at one time president of the Volcanic Oil & Gas Co., subsequently merged in the present Union Gas Co. of Chatham. Mrs. Rogers, two sons and one daughter survive.

East Texans Awaiting Coming Meeting at Tyler to Discuss Leaks and Illegal Crude Runs

By L. E. BREDBERG

DALLAS, Tex., Jan. 2.—East Texas is again producing after a shut down of two weeks duration. The field has been limited to a daily output of 290,000 bbls. under the latest order, a cut of 20,000 bbls. per day under the previous allotment. There are over 9,500 producers in the field, 165 of which are on the pump, while 25 others are standing "dead." Sixty-one of the 165 pumpers never flowed after completion, consequently were put on the pump. However, this number of pumpers is an exceptionally small percentage of the entire number of producers in the district.

All details were not completed at the Railroad Commission hearing at Austin on December 30 when those in attendance adjourned, so it was decided to hold final meeting at Tyler on January 12 to work out problems carried over from the previous meeting. Many company men and officials have been subpoenaed to attend that meeting, with the expectancy of obtaining more evidence in connection with prorating the field. Leaks in enforcement of proration orders will be the chief subject of discussion which will include legality of oil run and other phases of the long standing controversy in East Texas.

If the January 12 meeting does not iron out present difficulties, and violations are not stopped, many East Texas producers express the opinion that proration will be ended in that field.

Producers who have had 40 per cent of their production stored in Humble Oil & Refining Co. tanks under the company's sixty-forty plan of running and purchasing oil from wells to which it was connected, have received word from that company that it would purchase 20 per cent of the 40 per cent stored in their tanks, paying the prevailing price of 75 cents per barrel.

The announcement concluded: "There are accrued charges other than gathering charges against East Texas crude oil in storage with Humble Pipe Line Co., and it will be necessary that settlement be made for all such accrued charges against the portion purchased and for Humble Oil & Refining Co. to deduct for such charges and settle therefor with Humble Pipe Line Co. In making settlement for oil so purchased it will pay the value thereof as stated above, less such charges.

"This offer is subject to immediate acceptance by the several interested storers, and the Humble Oil & Refining Co. reserves the right to withdraw same at any time without notice before written acceptance by the several storers is received."

Charges made the producers for storing their oil in Humble tanks is 2 cents per barrel per month.

The company, however, has not changed its policy of buying 60 per cent and storing the remaining 40 per cent of the oil now run by it from connected wells, the new announcement affecting only the oil now stored in its tanks. The announcement was appreciated by those who have had oil standing in tanks since the middle of September when the purchasing company notified them that it would run only 50 per cent of their oil, storing the other 50 per cent, later changing the percentage of purchased and stored oil to 60 and 40 per cent. Cost of storage has been cutting into their revenue for the past few months, and they will be glad to see at least part of it purchased under the late announcement.

Decline in Field Work

Following the great decline in locations and completions last week is another similar report for this week, locations totaling only 25 and completions numbering 39, a drop of 26 under last week. Locations and completions have been steadily declining during the past five weeks, the last two weeks' reports showing a decided change from the past many months when both registered an average of over 100 per week.

With fewer wells completed each week there should be less trouble in finding connections for the new wells, thereby leaving no unconnected wells to find outlets below the market price. The Railroad Commission has announced that the 300 unconnected wells would get pipe line connections.

More injunctions are expected to be sought by some of the producers to restrain the railroad commission from enforcing its present orders.

More Federal Court injunctions are looming in connection with the seepage oil problem of northern Gregg County where eight shallow producers are producing unrestrainedly from water sand into which seepage oil from regular drilled wells is migrating. The oil is coming from wells in which there is "split" casing, which allows the oil to seep out and upward into the shallower sands. The Richardson-Callahan Syndicate, Rancho Oil Co. and Humble Oil & Refining Co. own the shallow producers, which are located in the D. Ferguson Survey. The former company obtained a permanent injunction from Federal Judge Randolph Bryant of Tyler to prevent the commission from interfering with producing its four shallow wells. The oil is being sold far below the market price.

A hearing was held by the commission at Longview on December 23, but nothing was accomplished, consequently offset producers are about to ask for Federal Court injunctions also, to prevent the commission from interfering with them if they drill for this migratory oil. With a Federal Court injunction standing against the commission nothing can be done in regard to wells of the one company, which is now drilling its fifth shallow well, consequently the offset producers are about to take action to help themselves.

Wildcatting Activities

The Centerville block held by the Shell Petroleum Corp. and seven associates will probably be given a second test before leases are turned back to the landowners within two years, at which time leases expire on the block. The first test, No. 1 Phillips,in the Swayze Survey, has definitely been displaced as a possible producer. It tested salt water for the second time, after plugging back from 6,157 feet where it was first tested, to 6,100 feet. The Woodbine sand streak logged at 6,054-58 feet was considered as having possibilities of sufficient saturation to make a commercial producer, but failed to affirm that belief when test was made of the upper sand streak, salt water again showing as it did from the lower saturated formation.

The showings made in this well were comparable to tests drilled several years ago south of Mexia on the fault. Those tests also made good showings from well saturated streaks of sand, but when tested failed to produce. However, no other test in the East Texas district has shown as high a saturation without making a producer, consequently the structure is still expected to produce.

An interesting test will be drilled on the south end of the Joiner area, southern Rusk County, by Farrell Drilling Co. of Fort Worth. The test will be a south offset to the Womack Oil Co.'s well which came in as a dry gasser, later producing oil after standing shut in for several months then opened for a test. It is the farthest south producer of the field, and the Farrel test may extend production a little farther, or mark the extreme southern limits of the field. The test may be classed as a semiwildcat.

A brace of tests were finally abandoned in Wood County this week when the Sinclair Prairie Oil Co. abandoned its No. 1 Saner in the M. Chandler Survey, at a total depth of 4,379 feet, and the test of Parriott and others on the Harvey-Stewart farm in the Ussery Survey, showed salt water when tested in Woodbine sand at 4,950-5,148 feet. The two tests were closely followed during their drilling but marked off two separate areas in that county as failures.

Two wildcat locations were announced, and the above mentioned test on the south end of the field, to be drilled by the Farrell Drilling Co. on the W. W. Hammett farm in the Walker Pettit Survey, southern Rusk County, set 10-inch casing at 122 feet.

White Oak Oil Co. made location for its No. 1 O. C. Clanton in the S. McCreary Survey, Franklin County, and is moving in material.

F. A. Fuller and others have a rig up on their No. 1 Shattesworth test in the James Dunn Survey, Upshur County, and will spud immediately.

The Brownsboro test of Meyers on the Olson farm in the Gibson Survey, Henderson County, remains shut down. This remains the only interesting wildcat in the district, and due to various troubles causing the test to be shut down so much, operators and companies have apparently lost any interest that they may have once had in it.

Van Field

The Van Field, Van Zandt County, added two producers this week, one a gasser, the other an oil well. The dry gasser is on The Texas Company's R. V. White tract in the northwest corner of the field, in the Nacogdoches County School Lands Survey. Woodbine sand was cored from 2,756-2,902 feet. The gasser was estimated good for 3,865,000 feet per day.

Pure Oil Co.'s No. 3 Mertie Elliott in the A. H. Wiley Survey, made nearly 4 bbls. per hour through three-quarters inch choke on 2½-inch tubing, on a three-hour test. It failed to flow when an

East Central Texas Wildcats

Week Ending January 2

Company, well, farm name, section and block—	Remarks:
ANDERSON COUNTY	
Barclay et al's No. 1 J. C. Beard, 150 ft. out of most westerly NE cor. of 178-ac. lease, J. Trimmer Sur.	S.D. 1,515 ft.
C. R. Wilmuth et al's No. 1 N. R. Watson, 500 ft. from W line and 4,850 ft. from N of S line of survey in 8½ of 139-ac. tract, M. Main Sur.	T.D. 1,528 ft.
ANGELINA COUNTY	
Crosbie et al's No. 1 John C. Davis, 150 ft. from N of center of tract and survey, John H. Graham Sur.	S.D. 645 ft.
W. J. Chandler's No. 1 L. J. Dearman, 350 ft. from S and W lines of 20-ac. tract, J. T. Peavy Sur.	S.D. 1,323 ft.
BOWIE COUNTY	
Roy Anderson's No. 1 Dyk.a, 2 miles W of Texarkana, M. Dykes Sur.	T.D. 2,990 ft.
Tom Bell et al's No. 1 C. M. Moss, 1,800 ft. from N line and 2,160 ft. from W line of 465-ac. tract and survey, O. D. Walton Sur.	Drlg. 620 ft.
CHEROKEE COUNTY	
Barkley Tate et al's No. 1 H. R. Neal, 330 ft. from N and W lines of tract, J. M. Procella Sur.	Derrick.
Bridges and Candler's No. 1 Berryman, center of Berryman tract, H. Kimble Sur.	S.D. 1,550 ft.
Davis et al's No. 2 Annie Kelly, 621 ft. W of No. 1, M. De Los Santos Coy Sur.	Derrick.
Hooper et al's No. 1 Doctor Overton, 330 ft. from N and E lines of tract and 330 ft. out of most easterly NE cor. of survey, Wesley Dikes Sur.	S.D. 3,075 ft.
L. J. Hopcroft et al's No. 1 J. R. Taylor, 2,600 ft. from E line and 2,000 ft. from S line of survey, G. M. Doherty Sur.	Location.
Loring Oil Co.'s No. 1 F. M. Swearingen, 330 ft. from S and E lines of 68-ac. tract, 2,800 ft. from W line and 330 ft. from S line of survey, Oliver Lund Sur., 1 mile SW of Maydelle	Fishing; T.D. 4,863 ft.
Mid-Tex Oil Co.'s No. 1 A. Pace (formerly Clopton), 288 ft. from N line and 320 ft. from most northerly E line of 40-ac. lease, Wesley Dikes Sur.	S.D. 3,590 ft.
Wilson & Stubbs' No. 1 L. Robert, 450 ft. from S and 150 ft. from W line of lease, J. B. Wolfin Sur.	Prepare to deepen; T.D. 3,600 ft.
DELTA COUNTY	
Commerce Oil Co.'s No. 1 Ablowich, 150 ft. from S line and 776 ft. from W line of H. D. Jewett 52-ac. tract, E. Chick Sur.	S.D. 3,813 ft.
ELLIS COUNTY	
Armstrong's No. 1 Milton Cook, SE cor. of 50-ac. tract, S. Frederick Sur.	S.D. 375 ft. (corrected).
Armstrong Bros.' No. 1 Reeves	S.D. 300 ft.
Armstrong Bros.' No. 1 John Lee Winn, 1,650 ft. from E and 150 ft. from S of Orland, Orlo Wheeler Sur.	S.D. 1,435 ft.
George Beasley's No. 1 Francis Borck, 850 ft. from SW line and 350 ft. from S and E lines of tract and grant, 11 League grant	Rig up.
Clark Brooks' No. 1 Anderson, SE cor. of 3,900-ac. tract, 10 miles SW of Waxachachie, E. C. Branch Sur.	S.D. 1,050 ft.
Paris Oil Co.'s No. 1 O. S. Bain, 1,500 ft. from S line and 300 ft. from W line of 60-ac. lease, R. M. Williams Sur.	S.D. 985 ft.
FRANKLIN COUNTY	
Whiteoak Oil Co.'s No. 1 O. C. Clanton, 750 ft. from S line of survey and 150 ft. from W line of survey, S. McCreary Sur.	Moving in material.

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eleven-sixteenths inch choke was tried. Sand was cored from 2,808-2,936 feet. It is another outpost test.

COMPLETIONS IN EAST TEXAS

North Gregg County

Humble Oil & Refining Co.'s No. 4 H. Castleberry, top sand 3,447 feet, initial production 60 bbls. per hour through three-quarters-inch tubing choke, total depth 3,496 feet; No. 4 J. M. McFarland, top sand 3,575 feet, initial production 75 bbls. per hour through three-quarters-inch tubing choke, total depth 3,596 feet. Shell Petroleum Corp.'s No. 24 J. Moore, top sand 3,536 feet, no gauge, total depth 3,557 feet; No. 4 Salter, top sand 3,689 feet, initial production 18 bbls. in one-half hour through tapered tubing, total depth 3,705 feet.

South Gregg County

Gulf Production Co.'s No. 6 T. C. Reeves, top sand 3,526 feet, no gauge, total depth 3,537 feet. Humble Oil & Refining Co.'s No. 25-B S. S. Laird, top sand 3,519 feet, initial production 40 bbls. per hour through three-quarters-inch tubing choke, total depth 3,613 feet. Magnolia Petroleum Co.'s No. 10 L. A. Griffin, top sand 3,549 feet, initial production 7 bbls. in five minutes through 1-inch tubing choke, total depth 3,593 feet. Mazda Oil Co.'s No. 2 J. A. King, top sand 3,634 feet, no gauge, total depth 3,637 feet. Producers Investment Co.'s No. 1 King, location abandoned. Rhoads Drilling Co.'s No. 3 Sabine River, top sand 3,555 feet, initial production estimated 30 bbls. in one-half hour through open tubing, total depth 3,562 feet; No. 9 Sabine River, top sand 3,625 feet, initial production 30 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,535 feet. Shell Petroleum Corp.'s No. 4 Donnie Carr, top sand 3,419 feet, no gauge, total depth 3,447 feet. Sun Oil Co.'s No. 3 E. Smith, top sand 3,588 feet, no gauge, total depth 3,635 feet. The Texas Company's No. 3 L. Radford, top sand 3,635 feet, no gauge, total depth 3,643 feet.

Humble Oil & Refining Co.'s No. 64 Crim, top sand 3,671 feet, initial production 100 bbls. per hour through three-quarters inch tubing choke, total depth 3,693 feet; No. 75 Crim, top sand 3,637 feet, initial production 90 bbls. per hour through three-quarters inch tubing choke, total depth 3,678 feet; No. 15 J. H. Peterson, top sand 3,632 feet, initial production 100 bbls. per hour through three-quarters inch tubing choke, total depth 3,669 feet; No. 12-B H. Sexton, top sand 3,648 feet, initial production 30 bbls. per hour through three-quarters inch tubing choke, total depth 3,761 feet. Southern Oil & Refining Co.'s No. 2 I.&G.N.R.R., top sand 3,687 feet, initial production 250 bbls. per hour through 1-inch tubing choke, total depth 3,687 feet. Walker-Murray and Gibson's No. 1 Solon Jackson, top sand 3,758½ feet, tested salt water, dry and abandoned, total depth 3,711 feet (P. W. Holmes Survey). Ward Oil Co.'s No. 6 Beall, top sand 3,728 feet, no gauge, total depth 3,730 feet. Wheelock and Collins' No. 13 D. Wells, top sand 3,645 feet, no gauge, total depth 3,663 feet.

South Rusk County

Champlin and Bass and Johnson's No. 2 J. R. Alford, top sand 3,735 feet, initial production 25 bbls. in 15 minutes through open 2-inch tubing, total depth 3,765 feet. E. H. Gibbs' No. 1 A. Thrash, top sand 3,667 feet, initial production 37 bbls. in 45 minutes through 1-inch tubing choke, total depth 3,729 feet. Humble Oil & Refining Co.'s No. 13-A A. D. Blackwell, top sand 3,626 feet, initial production 75 bbls. per hour through three-quarters inch tubing choke, total depth 3,644 feet; No. 25-A Kangerga, top sand 3,670 feet, initial production 80 bbls. per hour through 2-inch tubing, total depth 3,713 feet; No. 7 A. L. Walker, top sand 3,642 feet, initial production 86 bbls. per hour through three-quarters inch tubing choke, total depth 3,664 feet; No. 5-B H. White, top sand 3,626 feet, initial production 30 bbls. per hour through three-quarters inch tubing choke, total depth 3,732 feet; No. 12 J. H. Wooley, top sand 3,659 feet, initial production 80 bbls. per hour through three-quarters inch tubing choke, total depth 3,676 feet; No. 13 J. H. Wooley, top sand 3,637 feet, initial production 40 bbls. in 30 minutes through three-quarters inch tubing choke, total depth 3,657 feet; No. 5 F. F. Wooster, top sand 3,701 feet, initial production 50 bbls. per hour through three-quarters inch tubing choke, total depth 3,755 feet. McMahon's No. 2 Joe Lee, top sand 3,686 feet, initial production 25 bbls. in 30 minutes through open 2-inch tubing, total depth 3,688 feet. Roger Brothers' No. 2 W. A. Maxwell, top sand 3,724 feet, initial production 95 bbls. per hour through 2½-inch open tubing, total depth 3,743 feet. The Texas Company's No. 8 J. W. Wilson, top sand 3,642 feet, initial production 70 bbls. per hour through open 2-inch tubing, total depth 3,666 feet. Grady Vaughan's No. 4-A F. Reagan, top sand 3,739 feet, initial production 45 bbls. in 15 minutes through open 2½-inch tubing, total depth 3,777 feet. Ruebin and Nadel's No. 2 W. P. Keeling, top sand 3,695 feet, initial production 75 bbls. per hour through 1-inch tubing choke, total depth 3,725 feet.

Smith County

W. T. Graham's No. 1 Cooke, top sand 3,732 feet, initial production 10 bbls. in 20 minutes through open 2½-inch tubing, total depth 3,737 feet. Sun Oil Co.'s No. 2 Hudnott and Melton, top sand 3,716 feet, initial production 20 bbls. in 30 minutes through 2-inch open tubing, total depth 3,718 feet.

Upshur County

Humble Oil & Refining Co.'s No. 4 J. M. Smith, top sand 3,654 feet, initial production 53 bbls. per hour through three-quarters inch tubing choke, total depth 3,672 feet. Tucker and Van Fleck's No. 1 Dr. H. J. Childress, dry and abandoned, total depth 3,790 feet (J. H. Gilder Survey).

WILDCAT COMPLETIONS

Henderson County

Superior Oil Co.'s No. 1 Coleman Faulk, top Pecan Gap 2,463 feet, base 2,586 feet, top Red Beds 3,010 feet, top Georgetown lime 3,531 feet, dry and abandoned, total depth 3,543 feet (H. Z. Farmer Survey).

Wood County

F. B. Parriott's No. 1 John H. Harvey, top Pecan Gap 2,984 feet, base 3,240 feet, top Austin chalk 4,100 feet, base 4,560 feet, top Woodbine sand 4,291-94 feet, top sand 4,576 feet, base 4,584 feet, top Red Beds 4,950 feet, drill stem test 5,122-48 feet, tested 2,400 feet of salt water, dry and abandoned, total depth 5,148 feet (M. H. Ussery Survey).

Sun Denies Charges of Business Bureau

(Continued from Page 38)

the samples of extra priced gasolines obtained in the same cities, in regard to each of these nine premium qualities. Credit was given to a gasoline for one premium quality whenever that gasoline showed superiority in one of the nine qualities enmuerated.

"In Camden, Blue Sunoco was found to have more premium qualities than three of the six other samples, the same number of premium qualities as two of the other samples and a smaller number of premium qualities than one of the other samples.

"In Newark, Blue Sunoco was found to have more premium qualities than two of the four other samples, and the same number of premium qualities as two of the other samples.

"In Trenton, Blue Sunoco was found to have more premium qualities than five of the other six samples and a fewer number of premium qualities than one of the other six samples.

"In Atlantic City, Blue Sunoco was found to have more premium qualities than three of the other four samples and the same number of premium qualities as one of the other samples. Considering all 20 other samples, Blue Sunoco was found to have more premium qualities than 13, the same number of premium qualities as 5 and a less number of premium qualities than 2 of the other samples.

The Oil Man's Calendar

January

7-14—New York, National Automobile Show, Grand Central Palace.

9—Fort Worth, Tex., Texas Oil and Gas Conservation Association.

9-10—Fargo, N. Dak., annual convention, Northwest Petroleum Association, North Dakota Division, Waldorf Hotel.

12-13—St. Paul, Minn., annual convention, Northwest Petroleum Association, Minnesota Division, Lowry Hotel.

16-20—Detroit, Mich., Highway and Builders Congress.

19—Oklahoma City, Okla., Oklahoma Petroleum Marketers Association.

28-Feb. 4—Chicago, Ill., National Automobile Show, Coliseum.

February

7-8—Des Moines, Iowa, Iowa Petroleum Marketers Association, Hotel Fort Des Moines.

15-17—Columbus, Ohio, Ohio Petroleum Marketers Association, Desher-Wallick Hotel.

21-22—Louisville, Ky., Kentucky Petroleum Marketers Association, Brown Hotel.

March

23-25—Houston, Tex., eighteenth annual meeting, American Association of Petroleum Geologists. Society of Economic Paleontologists and Mineralogists, seventh annual meeting. Society of Petroleum Geophysicists, fourth annual meeting, Rice Hotel.

26—Washington, D. C., American Chemical Society.

April

5-6—Hot Springs, Ark., Western Petroleum Refiners Association.

13-15—Tulsa, Petroleum Industry Electrical Association.

20-21—Cleveland, Ohio, National Petroleum Association, Cleveland Hotel.

May

(?)—Tulsa, Natural Gasoline Association of America.

17-18-19—Tulsa, American Petroleum Institute Mid-Year Meeting. Mayo Hotel.

18-19—Roanoke, Va., Virginia Oil Men's Association, Patrick Henry Hotel.

June

12-16—Chicago, Ill., tenth annual meeting, American Oil Burner Association, Stevens Hotel.

26-30—Chicago, Ill., annual meeting, American Society for Testing Materials, Stevens Hotel.

October

24-26—Chicago, Ill., fourteenth annual meeting, American Petroleum Institute.

December

4—Fourteenth Exposition of Chemical Industries.

ROCKY MOUNTAIN RUNS

Average daily pipe line runs from fields in the Rocky Mountain territory for the week ending December 31 follow:

	Bbls.
WYOMING	
Salt Creek	20,440
Big Muddy	1,590
Badger Basin	50
Byron (East)	40
Dallas-Derby	400
Dutton Creek	80
Elk Basin	530
Ferris	20
Frannie	340
Greybull	10
Hudson	340
LaBarge	920
Lance Creek	60
Lost Soldier	2,600
Mule Creek	100
Midway	100
Oregon Basin	290
Osage	820
Pilot Butte	30
Rock River	1,100
Poison Spider	50
Teapot	30
Total Wyoming	29,940
MONTANA	
Buckley-Border	460
Cat Creek	800
Cut Bank	160
Dry Creek	100
Kevin-Sunburst	3,180
Lake Basin	50
Pondera	1,160
Total Montana	5,910
COLORADO	
Florence	300
Fort Collins and Wellington	720
Iles Dome	560
Moffat	570
Orchard	160
Rangely	100
Tow Creek	270
Total Colorado	2,680
NEW MEXICO	
Artesia	460
Caprock	720
Hogback	200
Jal	1,058
Table Mesa	70
Eunice	510
Hobbs	21,124
Lea	2,104
Texas-Pacific	92
Rattlesnake	250
Total New Mexico	26,618
Total Rocky Mountain area	65,148
Total previous week	67,686
Difference	2,538

LOSE CARGO OF CRUDE OIL

NEW YORK, Jan. 2.—The American tanker "Doris Kellogg," carrying a cargo of approximately 52,000 bbls. of crude oil from the Gulf for the Atlantic Refining Co.'s plant at Point Breeze, near Philadelphia, was abandoned afire at sea this week.

The crew of the Doris Kellogg was rescued by the Sun Oil Co. tanker Delaware Sun, which was en route from Smiths Bluff, Tex., to Marcus Hook, Pa., at the time she sighted the Kellogg afire and flying distress signals.

A. B. CONWAY DIES

A. B. Conway, 57, oil operator of Mineral Wells, Tex., died in a Ranger hospital from complications following an attack of influenza. He was a member of the firm of Conway Brothers, who operated extensively in Eastland and Stevens, Brown and Coleman Counties.

CHARCOAL GAS IN CHINA

About 50 delegates (mostly engineers or highway builders) from 14 Chinese provinces assembled at Changsha to witness the demonstration of a motor bus operated by charcoal gas. At present not more than 50,000 automobiles are in operation throughout the country.

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All Watching Crockett County Ordovician Test; Most Interesting Well in West Texas Field

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Jan. 2.—Stanolind Oil & Gas Co. and others' unitized Ordovician test in Section 67, Block UV, G.C.&S.F. Survey, Crockett County, started testing today, bailing down 4,200 feet without any showings of oil and gas thus far. At night, work was shut down, to be resumed in the morning.

The test has been standing shut down the past week with 7-inch casing cemented at 7,006 feet. The plug was drilled several days ago, and 3-inch tubing run preparatory to testing. So far the owners have received no encouragement as to its making a producer, but the last few hundred feet may absolutely change the appearance of the test showing it as having possibilities of making a producer from this deep pay formation. Total depth of the test is 7,357 feet. This is the most interesting test in West Texas at the present time and if it makes a producer will stimulate deep drilling in the entire district.

Ector County

The next test in importance in the Permian Basin is Landreth Production Co.'s No. 1 Holt, in Section 15, Block 43, Township 1n, T.&P. Survey, northern Ector County. Top of salt is called 1,620 feet by the company's office in Fort Worth, and base of salt 2,725 feet. This checks around 100 feet higher than Stanolind Oil & Gas Co.'s two producers 2½ miles to the southeast, augering good for the test. Latest reports from the field state it was drilling below 3,300 feet.

The Stanolind Oil & Gas Co. has staked location for its No. 1 E. F. Cowden, 1,320 feet from the west and 330 feet from the south lines of Section 26, Block 43, Township 2s, T.&P. Survey, Ector County. This is a north offset to Harrison, Turner and others' No. 1 Addis, in Section 35, same block and survey, the third discovery well for Ector County, which is now slowly deepening in an effort to pick up heavier production. On December 30 it was standing at 3,935 feet without apparent increase in oil. It is flowing around 14 bbls. per hour. The oil is being tanked to the Howard County Refining Co. at Big Spring.

Yates Field

E. J. McCurdy, Jr., of Fort Worth, has staked location for the first of three tests he will drill under an arrangement with the Shell Petroleum Corp., wherein McCurdy agrees to drill the tests 60 days apart, retaining shallow rights only, the Shell Petroleum Corp. reserving a one-eighth overriding royalty and all rights below top of the Permian lime. The location is in Section 2, Block 194, G.C.& S.F. Survey, in the shallow area northwest of the Yates Field, Pecos County. The latter company has one producer, No. 1 Smith, on the tract.

Concho County

Mintex Oil Co.'s No. 1 Sam Waring in Section 163, T.&N.O. Survey, Concho County, was drilled to 2,586 feet in gray lime, but so far has failed to pick up an increase in oil. Another test will soon be made on the pump. The first test on the pump, at 2,580 feet, failed to show the well as a commercial producer, consequently it was deepened in an effort to pick up heavier saturation.

Reagan County

Big Lake Oil Co.'s No. 1-C University, in the Big Lake Field, Reagan County, is still standing shut down at 9,562 feet with tests proving that the well has not been improved by deepening. It is to be tested further. It was to have been deepened to around 12,000 feet, but whether the company still contemplates carrying it to that depth is not known.

WICHITA FALLS

Benson and Benson's No. 1 J. L. Prideau is another Canyon Series test failing to make a producer when drilled to 2,281 feet. It had a showing of oil at 1,055-58 feet and another from 1,058-68 and 1,068-73 feet, all of which failed to prove of commercial worth. The Gunsight lime was logged from 1,371-73 feet. Elevation is 1,011 feet. The test is in Archer County, as is W. T. Hutchinson and others' failure on the Power Banking Co. land. It was abandoned at 2,326 feet. Elevation is 993 feet.

Many Canyon tests have been abandoned in this county during the past several months, the Chalk Hill area now appearing as the only area in which such production is found. Several wells are producing from this formation in that pool.

Approximately 20 wells in the district are now undergoing acid treatment, satisfactory results having been gained in several wells already treated in the lime producing areas of the district, thereby increasing interest in this method of treating wells to bring them back on heavier production.

Foard County

The Texas Company is underreaming 8¼-inch casing in its No. 3 L. K. Johnson test in Foard County, in an effort to set casing to shut off the 20,000,000 feet of gas and drill deeper in search of an oil sand. The gas is coming from 3,088-98 feet, and has decreased approximately 10,000,000 feet during the past three weeks. The sand is said to be the Gose-Swastika sand of Archer County, in the Cisco series.

Young County

The Helena Oil & Gas Co. has taken over the Continental Oil Co.'s block in the T.E.&L. Survey, Young County, and will drill several shallow tests to around 650 and 700 feet to test the regular Larrimore pay found in this area, and producing in the Larrimore Pool. The block consists of 3,360 acres, and Continental Oil retains a one-sixteenth overriding royalty on the production. The Continental Oil Co. drilled one deep test near the center of the block about two years ago, but without success.

Wildcat Operations in Texas Panhandle

Week Ending January 2

CARSON COUNTY

Company, well, farm name, section and block—	Remarks:
Gulf Prod. Co.'s No. 6 Cooper, 330 ft. from N and W SW, Sec. 4, Blk. 9, I.&G.N. Sur.	S.D. 3,075 ft.; T.P. 3,035 ft.; swabbed 600 bbls. in 24 hrs.
Panhandle Rfg. Co.'s No. 1 Kirby, 1,320 ft. N and W, Sec. 183, Blk. 3, I.&G.N. Sur.	Drlg. 405 ft.
Sinclair Prairie Oil Co.'s No. 1 Cooper, 330 ft. from S and W, Sec. 4, Blk. 9, I.&G.N. Sur.	T.D. 3,115 ft; shot with 95 qts. from 3,060-3,100 ft; swabbed 22 bbls. in 9 hrs.
Skelly Oil Co.'s No. 20 W. Schaffer, 1,320 ft. from S and E, Sec. 87, Blk. 4, I.&G.N. Sur.	Swabbed 36 bbls. per hr; T.D. 3,113 ft.
Skelly Oil Co.'s No. 21 West Schaeffer, 1,320 ft. N and E, Sec. 63, Blk. 4, I.&G.N. Sur.	Testing 3,150 ft.
Skelly Oil Co.'s No. 14 W. Schaffer, 330 ft. S and W, Sec. 191, Blk. 3, I.&G.N. Sur.	S.D. 3,237 ft.
Texoma Nat. Gas Co.'s No. 1-T Mineral Investing Corp., 1,323 ft. S, 1,326 ft. W, Sec. 60, Blk. 4, I.&G.N. Sur.	Drlg. 2,400 ft.
Union Pet. Co.'s No. 2 Cooper, 330 ft. N, 310 ft. E SE, Sec. 5, Blk. 9, I.&G.N. Sur.	Cellar.

CHILDRESS COUNTY

Robertson's No. 1 Biddy, center S 26½ acres of N, Laughlin Sur. Blk. T	Rig.

COLLINGSWORTH COUNTY

Cochran Bros.' No. 1 Atkinson, 660 ft. from N and E, Sec. 26, Blk. 21, H.&G.N. Sur.	S.D. 300 ft.
Kates et al's No. 1 Hickman, center NE, Sec. 43, Blk. 10, H.&G.N. Sur.	T.D. 1,815 ft.
Kates et al's No. 1 Bell, 300 ft. from N, 2,310 ft. from W, Sec. 21, Blk. 102, H.&G.N. Sur.	S.D. 2,702 ft.; elevation 2,265 ft.

COTTLE COUNTY

Darby Pet. Co. et al's No. 1 Puesall, 330 ft. from N, 1,320 ft. from E, Sec. 46, Blk. B, John H. Stevens Sur.	Drlg. 4,307 ft.

DEAF SMITH COUNTY

Western Union Oil Co.'s No. 1 Farwell, C NW, Sec. 18-3s-2e	S.D. 1,240 ft.

GRAY COUNTY

Back & Barber's No. 1 Back, 660 ft. from S, 330 ft. from W, Sec. 140, Blk. 25, H.&G.N. Sur.	S.D. 2,428 ft.
Baldridge et al's No. 1 Melton, 330 ft. from NE E half NE, Sec. 95, Blk. B-3, H.&G.N. Sur.	S.D. 3,075 ft.; T.P. 3,013 ft.; 40 bbls. daily.
Baldridge et al's No. 1 Catlin, 330 ft. S and E of E 80 of 158-ac. tract, Sec. 57, Blk. 3, I.&G.N. Sur.	U.R. csg. 2,220 ft.

(Continued on Page 42)

Long Beach Producers Threatened With Crude Price Cut If They Fail to Curtail

By L. P. STOCKMAN

LOS ANGELES, Calif., Dec. 31.—Despite the urgent pleas of refiners and marketers to effect immediate curtailment of crude oil production, several fields were still out of line at the close of 1932 and California's daily production was approximately 30,000 bbls. in excess of the established allowable.

At a meeting of Long Beach operators on Friday, producers were informed that they could expect drastic reductions in the price of crude oil unless they immediately curtailed production to the present allowable of 59,000 bbls. per day for the field. These views were expressed by L. P. St. Clair, president of the Union Oil Co.; Ralph B. Lloyd, president of the Oil Producers Sales Agency; V. R. G. Wilbur, chairman of the Signal Hill Committee; and A. T. Jergins, of the Jergins Syndicate, who incidentally informed operators that there would be practically no price for crude oil if the existing curtailment program was upset because of the failure of operators to curtail production.

Operators were also told that major companies would no longer purchase crude oil but would only handle their own production if the existing curtailment program should blow up.

Anticipating a decidedly lessened demand for gasoline during January and February, refiners and marketers have urged curtailment of crude oil production to alleviate the situation. Long Beach operators subsequently held a closed meeting to devise ways and means of accomplishing the desired result.

Unofficial reports indicate that Long Beach production will be substantially reduced within the next few days in order to prevent price reductions which will occur before January 10 if production continues in excess of the allowable. Major companies do not propose to store oil during January and February when consumption is normally at the lowest level. Gasoline sales in November were substantially below last year and preliminary figures indicate a lower demand during December.

COMPLETIONS IN PANHANDLE DISTRICT

Gray County

Kewanee Oil & Gas Co.'s No. 1 Morse Adams, old total depth 2,559 feet, new total depth 2,631 feet, initial production 25 bbls.

Hutchinson County

Stansylvania's No. 3 Stansbury, top pay 2,885-3,055 feet, initial production 168 bbls., total depth 3,075 feet.

JAMES H. DAMERON'S DEATH

James H. Dameron, age 32, who formerly represented The Oil and Gas Journal at Shreveport as correspondent for the Arkansas and North Louisiana Fields and later headed the Fort Worth, Tex., bureau of this publication, died of pneumonia in Okmulgee, Okla., on Friday, December 30.

Mr. Dameron was on the staff of the Petroleum Engineer at the time of his death. He was a World War veteran and after the war engaged in newspaper work as a general reporter and later as oil reporter. He had gained considerable experience in the work of writing oil developments when he joined the Journal staff, and thereafter, by close study and hard work, made himself one of the most efficient members of The Oil and Gas Journal's staff of correspondents.

Mrs. Dameron and three children, Mr. Dameron's parents and one sister survive.

Funeral services were held in Okmulgee Saturday and burial was made in Memorial Park, Tulsa, the same day.

East Central Texas Wildcats

(Continued from Page 38)

FREESTONE COUNTY

Clyde Creighton's No. 1 Holley Bros., 854 ft. from W line and center of N and S lines of lease, A.B.M. Sur. ..... S.D. 3,669 ft.

GREGG COUNTY

Roy Bumpass et al's No. 1 fee, 350 ft. from W line of survey and 100 ft. from S line of survey, L. J. Rigsby Sur. ..... Rig up.

Burke Royalty Co.'s No. 1 Carr, center of 200-ac. tract and lease, M. McCurry Sur. ..... Rig up and S.D.

Clark & Cowden's No. 1 Sheppard, 100 ft. from N line and 50 ft. from W line of Black's No. 5, M. Dillard Sur. ..... Drlg. 1,900 ft.

J. W. Crockett's No. 1 B. D. Russell, NW offset to Schulman's No. 1 Doris, M. V. Winkle Sur. ..... Waiting on standard rig; T.D. 3,540 ft.

J. E. Davant's No. 2 R. H. Rowland, 300 ft. S and 50 ft. W of Magnolia's No. 2 R. H. Rowland, M. V. Winkle Sur. ..... Spudded.

Joe Edgar et al's No. 2 Stinchcomb, 79 ft. N and 36.4 ft. W of most northerly SW cor. of Stanolind's Key lease, W. H. Hart Sur. ..... Moving in.

E. & F. Oil Co.'s No. 2 M. Jackson, 330 ft. from S line and center of E and W lines of 16.66-ac. lease, G. F. Penn Sur. ..... Derrick.

Farland Oil Co.'s No. 1, 128 ft. from W line and center of N and S lines of 6-ac. Cemetery tract, J. R. Rigsby Sur. ..... Waiting on cmt. to set; T.D. 3,595 ft.

Lewis Godlin's No. 1 E. L. Walker, 330 ft. N of road, 330 ft. from E line of 80.2-ac. tract, M. Dillard Sur. ..... Derrick.

Rose V. Glasscock's No. 2 Church Lot, 103 ft. from E line of lease and center of old highway, W. H. Castleberry Sur. ..... Washing; T.D. 3,521 ft.

Grisham & Hunter's No. 1 T.&P.R.R., NE offset to Clark & Cowden's No. 1 Sheppard, M. Dillard Sur. ..... Set csg.; T.D. 3,620 ft.

Grisham & Hunter's No. 3 T.&P., opposite center of Blk. No. 52, M. Dillard Sur. ..... Running csg.; T.D. 3,619 ft.

Guinn Petroleum Co.'s No. 1 J. S. and F. Elder, 200 ft. NE of Solar's No. 1 Elder, and 450 ft. SE of Martin's No. 1 Elder, M. V. Winkle Sur. ..... Drlg. 2,535 ft.

P. L. Hoffman's No. 3 Phillips, 330 ft. from W line and center of N and S lines of lease, D. Ferguson Sur. ..... Derrick.

Humble Oil & Refining Co.'s No. 3 W. C. Mackey, 401 ft. from S line and 330 ft. from E line of lease, H. F. Rodgers Sur. ..... Washing in; T.D. 3,621 ft.

E. M. Jones' No. 1 L. D. Crim, 330 ft. from N line and center of E and W lines of 10-ac. tract, M. V. Winkle Sur. ..... Testing; T.D. 3,586 ft.

Knox et al's No. 1 Clayton, 330 ft. from E line and center of N and S lines of lease, L. B. Outlaw Sur. ..... Drlg. 400 ft.

Edwin Lacy's No. 2 fee, center of 1¼-ac. tract, M. V. Winkle Sur. ..... Location.

J. M. Lapin's No. 1 fee, 437 ft. S and 224 ft. E of NE cor. of Humble's Knowles lease in 1.09-ac. tract, M. V. Winkle Sur. ..... S.D. 3,520 ft.

Lion Oil & Refining Co.'s No. 2 Evans, S offset to Sinclair Prairie's No. 10 Williams, P. McAnnelly Sur. ..... Derrick.

Magnolia Petroleum Co.'s No. 6 J. Allen, 188 ft. from E line of lease and 307 ft. S of No. 4, G. W. Hooper Sur. ..... Derrick.

J. C. Means' No. 4 W. D. Luce, SW offset to Blue Star's No. 3-G, E. L. Walker Sur. ..... Skidding derrick.

Monte Oil Co.'s No. 3 M. Finn, 60 ft. from N and E lines of lease, D. Ferguson Sur. ..... Location.

Moore et al's No. 1 Crim, 100 ft. S of Vance & Fagin's No. 1 Crim, M. V. Winkle Sur. ..... Waiting on cmt. to set; T.D. 3,582 ft.

Rajo Oil Co.'s No. 2 Barrett, 378 ft. from N line and 330 ft. from W line of lease, B. W. Witcher Sur. ..... Derrick.

Rhoades Drilling Co.'s No. 10 Sabine River (Tract No. 4), 375 ft. from No. 9 and 400 ft. from No. 11, State Sur. ..... Set surface csg.

Rhoades Drilling Co.'s No. 3 Sabine River (Tract No. 7), 2,310 ft. from E line and 2,390 ft. from W line ..... Foundation.

Smith Oil & Gas Co.'s No. 1 R. M. Woods, center of Blk. No. 126, H. R. Hokit Sur. ..... Drlg. 3,558 ft.

J. B. Sowell's No. 2 W. P. Luce, 378 ft. W of No. 1, E. L. Walker Sur. ..... Derrick.

Standard Supply Co.'s No. 1 Sam Carr, center of N 1-ac. lease of W 2 acres of SE 4-ac. tract, M. McCurry Sur. ..... Waiting on cmt. to set; T.D. 3,520 ft.

Sun Oil Co.'s No. 1 A. G. Morton, 1,200 ft. S of NW cor. and 306 ft. E of W line of lease, S. Baggett Sur. ..... Rig up.

Sun Oil Co.'s No. 2 A. G. North, 318 ft. from W line of lease and 551 ft. from No. 1, S. Baggett Sur. ..... Location.

L. W. Tarkington et al's No. 1 B. Robinson, 150 ft. from N and W lines of 68-ac. lease (old Atlantic & Pacific lease), S. S. Davis Sur. ..... S.D. 3,511 ft.

The Texas Company's No. 6 Phillips, 623 ft. W and 170 ft. S of NE cor. of 18-ac. lease, H. R. Hokit Sur. ..... Location.

Tidal Oil Co.'s No. 2 J. S. Elder, 284 ft. from S line and 330 ft. SE of NW line of lease, M. V. Winkle Sur. ..... Drlg. 1,500 ft.

W. C. Turnbow's No. 2 McKinley, 125 ft. N and 420 ft. E of NE cor. of Yount Lee's Harley lease, D. Sanches Sur. ..... Derrick.

Universal Oil & Gas Co.'s No. 2 Adkins, 750 ft. S of No. 1, D. Dainwood Sur. ..... Waiting on cmt. to set 150 ft.

Y Oil Co.'s No. 2 A. M. Kinsel, 330 ft. from E line and center of N and S lines of lease, H. Kirk Sur. ..... Shut down.

HENDERSON COUNTY

B. L. Green et al's No. 1 M. H. Gussett (old well drilled deeper), 150 ft. from N line and 1,000 ft. from W line of 105.5-ac. tract, 3 miles SW of Mabank, L. D. Stover Sur. ..... S.D. 3,328 ft.

Dr. J. T. Kennon et al's No. 1 Rowe & Baker, 1,320 ft. from N line and 150 ft. from W line of survey and tract, Josiah T. Childress Sur. ..... S.D. 920 ft.

H. H. Meyer's No. 1 M. E. Olson, 2 miles S of Brownsboro tract in NW cor. of survey, George Wilson Sur. ..... Cored Taylor shale 3,719-22 ft.; bailed dry; no show; S.D.; T.D. 3,722 ft.

HILL COUNTY

T. J. Spikes' No. 1 M. H. Davis, 150 ft. from S and E lines of 55-ac. tract, H. R. Alexander Sur. ..... Cleaned hole; prepare to test; T. D. 1,550 ft.

HOPKINS COUNTY

Burgess and Sinson's No. 1 First Natl. Bank, 470 ft. N and W of SE cor. D. Buie Sur., but located in the H.E.P.&P.R.R. Sur. ..... S.D. 1,390 ft.

E. P. Corley's (formerly E. L. Chapman) No. 1 Jumper, old well being drilled deeper, 175 ft. from N line and 285 ft. from W line of tract, J. Webb Sur. .... S.D. 1,630 ft.

HUNT COUNTY

A. Kelsey et al's No. 1 W. R. Berry, 450 ft. from S line and 300 ft. from E line of 139-ac. tract, J. Roads Sur. ..... Location.

KAUFMAN COUNTY

Elsy-Bentley-Brewer et al's No. 1 J. B. Hunter, 300 ft. from S line and 150 ft. from SE line of 500-ac. tract, 4 miles S of Terrell, R. Sowell Sur. ..... Derrick.

LAMAR COUNTY

Doyle and Jondeau's No. 1 Martin, 990 ft. from N line and 330 ft. from E line of tract, Joseph Deck Sur. ..... Rig up; T.D. 2,446 ft.

LEON COUNTY

Alladay et al's No. 1 W. R. Thompson, 330 ft. from N line of survey and 330 ft. from E line of 98-ac. tract, N. M. Allen Sur. ..... S.D. 2,170 ft.

Shell-Penn & Black's No. 1 W. M. Phillips ..... Will plug into pipe; T.D. 6,149 ft.

LIMESTONE COUNTY

Miller Drilling Co. and Joiner's No. 1 J. A. Stephenson, 400 ft. from S line and 300 ft. from E line of lease, one-fourth mile SE of Kosse, Charles Welch Sur. .... S.D. 3,110 ft.

MORRIS COUNTY

Grover Hart's No. 1 Walcott and Lott, 250 ft. from N line and 330 ft. from E line of survey, 3 miles S of Carson, B. A. Russell Sur. ..... S.D. 1,550 ft.

Joiner & Harris Drilling Co.'s No. 1 Clayton Brown, 1,625 ft. N. of most easterly SW cor. of survey, William M. Coffey Sur. ..... S.D. 1,550 ft.

Leonard's (Tucker-Fullwood) No. 1 P. M. Staggers, 450 ft. from N line and 150 ft. from E line of 65-5-ac. tract, J. D. Nelson Sur. ..... S.D. 3,660 ft.

RED RIVER COUNTY

Ajo Oil Co.'s No. 1 Nickels & Daniels, center of S 780 acres of 1,308-ac. tract, 8 miles N of English, Hugh B. Shaw Sur. ..... Location.

Concord Oil Co.'s No. 1 J. R. Dallahunty, 500 ft. from N of Isaac Moore Sur. and 200 ft. E of E line of Robert Glass Sur. ..... S.D. 2,774 ft.

L. G. Priest's No. 1 R. W. Peck, 900 ft. N and 500 ft. S of southerly SE cor. of 220-ac. tract, A. Wagley Sur. ..... Drlg. 1,302 ft.

ROCKWALL COUNTY

Bucanner Oil Co.'s No. 1 H. L. Lofland, center of 65-ac. tract in W. M. Bird Sur. ..... Set 10-in. csg. 130 ft.

RUSK COUNTY

Big Indian Oil Co.'s No. 1 Joe Lee, 172 ft. from S line and 990 ft. from W line of 24-ac. lease, Peter Tipps Sur. ..... Swabbed through tubing showed some salt water; S.D. 3,646 ft.

Bodine et al's No. 1 G. W. Cooper, 1,760 ft. N and 330 ft. E of SW cor. of Ximenes Sur. ..... S.D. 3,593 ft.

A. P. Cary's No. 1 Redwine, 150 ft. from N and W lines of Lot No. 7 on 5-ac. lease, Juan Ximenes Sur. ..... Swabbing; T.D. 3,550 ft.

T. E. Castle's No. 1 R. H. Gary estate, 3,960 ft. from N line and 5,280 ft. from W line of survey, 10 miles S of Henderson, A. Latham Sur. ..... S.D. 3,812 ft.

Cranfill & Reynolds' No. 1 W. J. Weatherby, 1,400 ft. from E line and 7,200 ft. from S line of survey, Wade J. Walters Sur. ..... Rig up and S.D.

Fair & Thompson's No. 1 D. Bradford, S offset to Hunt's No. 1-D Bradford, Juan Ximenes Sur. ..... Drlg. 2,630 ft.

Farrell Drilling Co.'s No. 1 W. W. Hammett, 330 ft. from N and E lines of 100-ac. lease, Walker Pettit Sur. ..... Set surface csg. 122 ft.

Harris and Russell's No. 1 T. W. Harris, 330 ft. from S line and 660 ft. from W line of most southerly SW cor. of 160-ac. tract, 3 miles SW of Henderson, W. G. Davis Sur. ..... Derrick.

Hathaway et al's No. 1 Gray, J. M. McLain Sur. ..... S.D. 3,905 ft.

Gulf Production Co.'s No. 3 Elnora Cole, 330 ft. from N and E lines of lease, S. P. Hollingsworth Sur. .... Location.

H. B. W. Oil Co.'s No. 2 Redwine, 150 ft. from E line and center of Payne's No. 1 Redwine, Juan Ximenes Sur. ..... Derrick.

Hudson's No. 1 Jeff Phillips, 150 ft. from N line of survey and 640 ft. from W line of 100-ac. tract, 4 miles SE of Minden, Nepomucene Villarea Sur. .... S.D. 1,500 ft.

Humble Oil & Refining Co.'s No. 2 C. H. Hedge, 330 ft. from N and W lines of lease, J. C. Barnett Sur. ..... Derrick.

Humble Oil & Refining Co.'s No. 1 J. D. Taylor, 330 ft. from W line of lease and S offset to No. 1 Hedge ..... Derrick.

Humble Oil & Refining Co.'s No. 5 R. A. Barksdale, 906 ft. from N line and 565 ft. from E line of 76-ac. lease, S. P. Hollingsworth Sur. ..... Moving in rig.

Humble Oil & Refining Co.'s No. 9 C. J. Thompson, 700 ft. from S line and 950 ft. from W line of 116-ac. lease, M. J. Pru Sur. ..... Drlg. 2,617 ft.

Iotex Oil Co.'s No. 3 Tom Beall, W offset to Ward Oil Co.'s No. 3 Beall, P. W. Holmes Sur. ..... Derrick.

J. Jeagen's No. 1 Needham, 330 ft. from N line of lease and 330 ft. from NE and 400 ft. from SE of survey, J. H. Chambers Sur. ..... S.D. 1,414 ft.

Jenkins Bros.' No. 1 Daisy Bradford, 150 ft. from W line of 45-ac. tract, Juan Ximenes Sur. ..... Rig up and S.D.

Kimble & Acre's No. 1 Frederick, 150 ft. from S line and center of E and W lines of 10-ac. lease, Juan Ximenes Sur. ..... Derrick.

Lide & Rowe's No. 4 C. Young, 150 ft. from N and E lines of 20-ac. lease, M. J. Pru Sur. ..... Drlg. 3,728 ft.

Lucy Petroleum Co.'s No. 4 D. B. Gill, 330 ft. from N and W lines of lease, W. A. Elliott Sur. ..... Derrick.

Orr et al's No. 1 J. C. Hale, 590 ft. E and 330 ft. S of NW cor. of 50-ac. tract, M. V. Pena Sur. ..... Drlg. 3,675 ft.

Overton Refining's No. 2 Maxwell, 70 ft. S of J. E. Oliver's No. 1 G. Pool, F. Cordova Sur. ..... Rig up and S.D.

Paulett et al's No. 1 Ed Sparks, 350 ft. from E, 150 ft. from S of survey, L. C. Riggs Sur. ..... S.D. 1,465 ft.

R. O. Payne's No. 1 Redwine, 200 ft. from N and W lines of Lot No. 3, Juan Ximenes Sur. ..... Top sand 3,505 ft.; T.D. 3,608 ft.

Sandifer et al's No. 1 L. J. Pinkston, S offset to Champlin and Bass' No. 1 Pinkston, J. B. De Cadena Sur. ..... Derrick.

Ross Seward's No. 1 Burton, J. J. Y'Barbo Sur. ..... T.D. 3,387 ft.

Smith and Sikes' No. 2 W. H. Frederick, 150 ft. from S and E lines of 10-ac. lease, Juan Ximenes Sur. .... S.D. 2,969 ft.

Snyder et al's No. 2 Stewart, 174 ft. NW of No. 1 and 190 ft. SE of C. L. Archer's No. 1 J. H. Stewart, John Womack Sur. ..... Derrick.

Stanolind Oil & Gas Co.'s No. 1 Bettie Coleman, 330 ft. from S and W lines of 320-ac. lease, James Burke Sur. ..... Rig up.

Sun Oil Co.'s No. 4 R. J. Hendon, 330 ft. from W line of lease and 232 ft. S of No. 3, Juan Ximenes Sur. .. Rig up.

Sun Oil Co.'s No. 5 R. J. Hendon, 330 ft. from N and E lines of 120-ac. lease, Juan Ximenes Sur. ..... Location.

The Texas Company's No. 2 G. G. Turner, 878 ft. from S line and 195 ft. from W line of lease, T. H. Smith Sur. ..... Running csg.; T.D. 3,705 ft.

Tidal Oil Co.'s No. 8 Jack Bean, 330 ft. from S line of lease and 255 ft. E of No. 5, J. Lewis Sur. ..... Spudding.

SMITH COUNTY

McCullough Oil Co.'s No. 2 Church, 100 ft. from S line and center of E and W lines of lease, J. Jordan Sur. ..... Derrick.

McRable et al's No. 1 C. P. Hamilton, 330 ft. from S and E lines of 255-ac. tract, Jackson Rector Sur. .. Rig up and S.D.

Mundt et al's No. 1 W. E. Murray, 330 ft. from S and E lines of lease, 5 miles SE of Tyler, Marshall Wynn Sur. ..... S.D. 4,378 ft.

M. M. Rowan et al's No. 1 Gibbons Mfg. Co., 5,900 ft. from S line and 8,050 ft. from W line of survey ....Moving in rig; T.D. 3,610 ft.
Sinclair Prairie Oil Co.'s No. 6 Patterson, 330 ft. from N and W lines of lease, J. Vargas Sur. ....Temp. abnd.; T.D. 3,753 ft.
Sun Oil Co.'s No. 7 J. A. Layne, 330 ft. from S line and 201 ft. from E line of lease, S. Dexter Sur. ....Waiting on cmt. to set; T.D. 3,644 ft.

TITUS COUNTY

Perry V. Cook's No. 1 M. C. Rogers, center of SW of Moore Sur. ....T.D. 4,212 ft.

UPSHUR COUNTY

Creighton Drilling Co.'s No. 2 Hargraves, 330 ft. from S line of lease and 660 ft. W of No. 1, M. Mann Sur. ....T.D. 3,740 ft.; will drill deeper.
H. W. Elliott et al's No. 1 W. H. Reid, 495 ft. from S and W lines of E 39 acres of 54-ac. lease, Marshall Mann Sur. ....Drlg. 3,550 ft.
F. A. Fuller et al's No. 1 Shattesworth, 330 ft. from S and E lines of W 50 acres of 100-ac. tract, James Dunn Sur. ....Rig up.
Louis Godlin's No. 3 Mackey, 330 ft. NE of No. 1 and 125 ft. N of highway, S. Harrell Sur. ....Waiting on cmt. to set; T.D. 3,713 ft.
Pat Hudson et al's No. 1 D. F. Smith, 330 ft. out of SE cor. of W 100 acres of the N 200 acres of the 272-ac. lease, 3 miles E and 1¼ miles N of Cranfill & Reynolds' No. 1 Rash, John Denson Sur. ....Waiting orders 3,710 ft.
Lynch and McQuing's No. 1 L. T. Mackey, 330 ft. from S line of road and 330 ft. from E line of road, Sarah Harrell Sur. ....Set csg.; T.D. 3,707 ft.
Magnolia Petroleum Co.'s No. 9 H. Hampton, 330 ft. from S line of lease and 791 ft. E of No. 6, D. Ferguson Sur. ....Derrick.
L. B. Pruitt's No. 1 B. F. Phillips, 150 ft. N and 330 ft. W of most southerly SE cor. of 81.6-ac. tract, William Goodwin Sur. ....Derrick.
J. F. Roberts et al's No. 3 A. L. Jenkins, 317 ft. from N line of lease and 3 offset to Humble's No. 5 Phillips, H. Edwards Sur. ....Drlg. 3,350 ft.
Travis & Weir's No. 1 L. P. League, 330 ft. from N line and 330 ft. from W line of N 18 acres of L. P. League Sur. ....Derrick.
Twin Oil Co.'s No. 2 J. Mackey, 330 ft. from S line of lease and 660 ft. W of No. 1, J. M. Pineda Sur. ....Drlg. 3,400 ft.
R. H. Vice et al's No. 2 L. Graves, 330 ft. from W line of lease and 660 ft. N of No. 1, M. Irwin Sur. ..Waiting on cmt. to set; T.D. 3,550 ft.
Wadley and Evans' No. 1 W. S. Jones, 330 ft. from S and E lines of 100-ac. lease, James M. Dunn Sur. ...T.D. 3,690 ft.
Wadley & Lyons' No. 1 Hall, 150 ft. out of NW cor. of H. E. Hall 14-ac. tract, William McKey Sur. ....Drlg. 3,545 ft.
Waggoner et al's No. 2 Williams, center of 5-ac. lease, McKinley and Williams Sur. ....Drlg. 1,200 ft.
Watson's (formerly Kinsey) No. 1 D. F. Smith, 466 ft. from S line and 1,165 ft. from E line of 366-ac. tract, J. R. Davis Sur. ....S.D. 1,856 ft.
J. Z. Werby's No. 3 Read, 330 ft. from S line of lease and 490 ft. W of No. 1 T. Hopkins Sur. ....Derrick (corrected).

VAN ZANDT COUNTY

Barton et al's No. 1 C. L. Hubbard, 600 ft. out of NE cor. of Hubbard 225-ac. tract, 3½ miles S of Canton, M. J. De Cadena Sur. ....S.D. 3,800 ft.
Kelly O. & G. Co.'s No. 1 Lemsford, center of Lemsford tract, John Conner Sur. ....S.D. 2,300 ft.
Killum & Chisum's No. 1 N. E. Clark, 165 ft. out of most westerly NW cor. of tract, 2 miles S of Van, Jackson Thomas Sur. ....S.D. 3,036 ft.
Killum & Chisum's No. 1 J. J. Goode, 150 ft. from N line and 375 ft. from E line of lease, 5 miles SW of Van, David Rose Sur. ....Derrick.
Lyman et al's No. 1 J. C. Stewart, 150 ft. from N line and 660 ft. from W line of 90-ac. tract, A. McPhail Sur. ....T.D. 2,731 ft.
J. C. Peten's No. 1 W. J. Brannon, 150 ft. from N and W lines of 45-ac. tract, 3½ miles N of Van, M. Gross Sur. ....Spudded and S.D.
Pure Oil Co.'s No. 3 M. Elliott, 200 ft. E of W line and 225 ft. S of N line of lease, A. H. Wiley Sur. ....Set csg.
Pure Oil Co.'s No. 6 O. L. L. Swain, 250 ft. N of S line and 250 ft. W of E line of 40.7-ac. tract, John Walling Sur. ....Set surface csg.
Pure Oil Co.'s No. 4 B. W. Russell, 150 ft. S of N line and 225 ft. W of E line of 30-ac. tract, David Rose Sur. ....Set surface cmt.
A. C. Rowan's No. 1 W. E. Price, 150 ft. from N line and 150 ft. from W line of 28-ac. tract, John Walling Sur. ....S.D. 2,942 ft.
Roy Stumpff's No. 1 M. I. Riggs, 169 ft. from E line and 250 ft. from S line of tract No. 3 and 330 ft. from E line of lease, 4 miles NE of Van, William Daniel Sur. ....Rig up and S.D.
H. C. Teague et al's No. 1 C. W. Morris, 1,000 ft. from N line and 300 ft. from E line of 160-ac. tract, 5 miles SE of Ben Wheeler, C. L. Morrison Sur. ....Cleaning out; T.D. 3,097 ft.
The Texas Company's No. 2 W. H. White, 217 ft. W of E line and 250 ft. N of S line of lease, John Walling Sur. ....Running 7-in. csg.
The Texas Company's No. 5 R. V. White, 250 ft. S of N line and 200 ft. E of W line of 15.5-ac. tract in Nacogdoches County School Land Sur. ....Cmt. setting 2,766 ft.
Van Oil Association's No. 1 Tankersley, 200 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ....T.D. 2,859 ft.
C. O. Weir's No. 1 W. B. Tunnell, 150 ft. from N and W lines of lease, A. H. Wiley Sur. ....T.D. 3,003 ft.

WOOD COUNTY

De Canther's No. 1 N. L. McLain, 350 ft. from N line and 642 ft. from E line of tract, Sam Brooks Sur. ....S.D. 2,835 ft.
Hull & Short's No. 1 T. H. Peterson, 600 ft. from S line and 200 ft. from E line of 320-ac. tract and survey, 4 miles E of Mineola, W. B. McNutt Sur. ....T.D. 2,810 ft.
Sinclair Prairie Oil Co.'s No. 1 M. R. Sayner, 330 ft. from N and W lines of Blk. No. 19, one-half mile N of Elberta, J. M. Chandler Sur. ....S.D. 4,379 ft.
Talko Oil Co.'s No. 1 G. T. Ross, B. L. Smith Sur. ....S.D. 3,840 ft.
Wood County Dev. Co.'s No. 1 Davis, approximately 150 ft. from S line of 160-ac. tract and 2½ miles S of Kantes in Sarah McDonald Sur. ....S.D. 4,200 ft.

Wildcat Operations in Texas Panhandle

(Continued from Page 40)

Baldridge O. Co.'s No. 1-B Melton, 330 ft. from N and E of SW, Sec. 95, Blk. B-2, H.&G.N. Sur. ....S.D. 1,655 ft.
Bell O. & G. Co.'s No. 2 Tedesco Webb, 330 ft. S and W, Sec. 41, Blk. 25, H.&G.N. Sur. ....Carrying 8-in. csg.
Boyes et al's No. 1 Colebank-Morse, 330 ft. NE, Sec. 65, Blk. 25, H.&G.N. Sur. ....S.D. 2,554 ft.; shot. 50 qts.; no results.
Gordan Burch's No. 1 Laugham, 990 ft. S, 330 ft. E, Sec. 1, W½ NE, Sec. 1, Blk. B-2, H.&G.N. Sur. ....Drlg. 1,225 ft.
Cantone Oil Co.'s No. 2 Morse, 330 ft. from N, 330 ft. from E line, Blk. 9-A, Sec. 15, H.&G.N. Sur. ....Location.
Christy's No. 1 Gethings, 330 ft. from N and E, Sec. 13, Blk. A-9, H.&G.N. Sur. ....S.D. 1,760 ft.
Sam Danner's No. 1 Cobb, 330 ft. S and W NE, Sec. 165, Blk. 5, L.&G.N. Sur. ....Drlg. 440 ft.
Dolomite Prod. Co.'s No. 1 Sallor, 330 ft. N and E, Sec. 111, Blk. 3, L.&G.N. Sur. ....S.D. 690 ft.
Gerber O. & G. Co.'s No. 1 Stubbs, 330 ft. from S, 990 ft. from W, Sec. 9, Blk. 3, B.&B. Sur. ....Rig.
Gray County Prod. Co.'s No. 1 Huselby, 330 ft. from S and W, E½ NW, Sec. 55, Blk. 25, E.&G.N. Sur. ....S.D. 240 ft.
Gulf Oil Corp.'s No. 2 Catlin, 330 ft. S and W NW cor. SW, Sec. 40, but in Sec. 57, Blk. 3, L.&G.N. Sur. ....Set 7-in. csg. at 2,900 ft.
R. H. Locke's No. 1 McKnight, 1,320 ft. N and W, Sec. 178, Blk. B-2, H.&G.N. Sur. ....Machine.
Mazda-Shell Pet. Corp.'s No. 3 Combs-Worley, 330 ft. from N and W NE, Sec. 35, Blk. 3, L.&G.N. Sur. ....Flowed 27 bbls. per hr. with 13,000,000 ft. of gas; T.D. 3,033 ft.
Mazda-Shell's No. 4 Coombs-Worley, 660 ft. from N line, 660 ft. from E line, NE Sec. 35, Blk. 3, L.&G. N. Sur. ....Location.
Mid-Kansas O. & G. Co.'s No. 2 Webb, 990 ft. from N, 330 ft. from W NE, Sec. 61, Blk. 25, H.&G.N. Sur. ....T.D. 2,600 ft; swabbed 45 bbls. daily while C.O.
Mid-Kansas O. & G. Co.'s No. 1 Gethings, 330 ft. S, 1,650 ft. W S½ S½, Sec. 13, Blk. A-19, H.&G.N. Sur. ..Drlg. 2,380 ft.
Ochiltree et al's No. 1 Hughey, 340 ft. S, 330 ft. E E half SE, Sec. 129, Blk. 3, L.&G.N. Sur. ....S.D. 2,640 ft.
Parton & Holt's No. 2 Morse, 330 ft. from W, 350 ft. from N, W½ SW, Sec. 5, Blk. 26, H.&G.N. Sur. ....S.D. 2,635 ft.
Parton Holt's No. 3 Morse, 660 ft. from N and E of E half SW, Sec. 5, Blk. 26, H.&G.N. Sur. ....S.D. 2,582 ft.; flowed 8 bbls. per day.
Phillips Pet. Co.'s No. 1 Davidson, 330 ft. N and W, Sec. 86, Blk. B-2, H.&G.N. Sur. ....Bldg. rig.
Pulse-Shell's No. 1 Brown, 290 ft. from N, 250 ft. from E of NW, Sec. 128, Blk. 3, L.&G.N. Sur. ....T.D. 3,263 ft.; T.P. 3,215 ft.; swabbed 230 bbls. in 14 hrs. after shot.
Quicksand Oil Co.'s No. 2 Chapman, 165 ft. N, 775 ft. from E of W 80 ac. of N½ NW, Sec. 69, Blk. 25, H.&G.N. Sur. ....U.R. csg. at 1,975 ft.
Saunders et al's No. 2 Sullivan, 322 ft. from W, 231 ft. from NE, 160 ft. S, 264 ac. of N½, Sec. 136, Blk. 3, L.&G.N. Sur. ....Will plug back to 3,275 ft. and shoot.
Skelly Oil Co.'s No. 3 South Jackson, 330 ft. from N, 990 ft. from E, Sec. 88, Blk. B-2 ....Cmtd. back to 1,970 ft. and S.D.
Tedesco-Bell O. & G. Co.'s No. 3 Morse, 340 ft. from N and W N half SE, Sec. 1, Blk. 26, H.&G.N. Sur. ....T.D. 2,590 ft; pumped 190 bbls. in 14 hrs.
Tedesco-Bell O. & G. Co.'s No. 4 Morse, 990 ft. N and W SE, Sec. 1, Blk. 26, H.&G.N. Sur. ....Bldg. rig.
Texoma Nat. Gas Co.'s No. 1-E Yowell, 1,321 ft. N, 1,317 ft. E, Sec. B-2, Blk. 213, H.&G.N. Sur. ....Pulling pipe at 2,486 ft.
Texoma Nat. Gas Co.'s No. 1-G Abersold, 2,632 ft. N, 2,640 ft. W, Sec. 130, Blk. 3, L.&G.N. Sur. ....Rig.
The Texas Co.'s No. 3 Barrett, 1,023 ft. N, 300 ft. E NW, Sec. 130, Blk. 3, L.&G.N. Sur. ....T.D. 3,090 ft; standardizing.
The Texas Co.'s No. 1 Gethings, 330 ft. from S line, 330 ft. from W line, S½ Sec. 47, Blk. 9-A, H.&G.N. Sur. ..Location.
The Texas Co.'s No. 2 Frashier, 997 ft. N, 1,323 ft. from E, Sec. 162, Blk. 3, L.&G.N. Sur. ....T.D. 3,305 ft.; T.P. 3,240-67 ft.; swabbed 72 bbls. in 12 hrs.
The Texas Co.'s No. 14 Williams, 330 ft. N, 370 ft. W, Sec. 7, Blk. 1, A.C.H.&B. ....T.D. 2,756 ft.; T.P. 2,595 ft.; put on pump.
The Texas Co.'s No. 15 Williams, 330 ft. N and E, Sec. 6, Blk. 1, A.C.H.&B. Sur. ....T.P. 2,685-90 ft; swabbed and flowed 110 bbls. in 18 hrs.; T.D. 2,790 ft.
Sam Travis' No. 1 Back, 330 ft. S and E E half NE, Sec. 44, Blk. 25, H.&G.N. Sur. ....Material on ground.
Tripplehorn Bros.' No. 1 Lovett, 330 ft. from N and W, Sec. 57, Blk. B-2, H.&G.N. Sur. ....T.D. 3,154 ft; S.L.M; swabbed 75 bbls. in 12 hrs.
Weltzel Oil Co.'s No. 2 Morse, 330 ft. from S and E of N half NW, Sec. 67, Blk. 25, A.&G.N. Sur. ....T.D. 2,675 ft.; plugged back to 2,285 ft.; to set csg.

HEMPHILL COUNTY

Hoover's No. 1 Hoover, 350 ft. from N, 1,200 ft. from E, G. S. Hood Sur. ....S.D. 5,230 ft.

HUTCHINSON COUNTY

Alexander's No. 1 Cockrell, 330 ft. N and E of E 80 of S 160, Sec. 3, Blk. M-2, T.C. Sur. ....Rigging up standard tools.
Baso's No. 1 Moore, 330 ft. from S, 330 ft. from E, in 80 ac. in NW, Sec. 21, Blk. M-21, T.C.R.R. Sur. ....T.D. 3,080 ft.; est. 5 or 10 bbls. may plug.
Danciger O. & R. Co.'s No. 1 Johnson, 330 ft. N and W, SE, Sec. 34, Blk. Y, A.&B. Sur. ....Spudded and S.D.
Deal O. & G. Co.'s No. 2 Sanford, 330 ft. N and E of N 80 ac., S 160 ac., Sec. 81, Blk. 46, H.&T.C. Sur. ....S.D. 450 ft.
Huber Pet. Co.'s No. 1 Moyer-Johnson, 990 ft. from N, 330 ft. from E half SW, Sec. 34, Blk. Y, A.&B. Sur. ....S.D. 2,918 ft.
Huber Pet. Co.'s No. 1 Works, 1,342 ft. from S and 1,313 ft. from E, Sec. 7, Blk. Y-2, T.T. Sur. ....Drlg. 1,440 ft.
Liner Drlg. Co.'s No. 1-D Johnson, 330 ft. from N and E, Sec. 6, Blk. 1, B.&B. Sur. ....S.D; pulled 5-in. csg; T.D. 3,146 ft.
Joe Murphy's No. 1 Watkins, 440 ft. from N and W of N half, Sec. 13, Blk. M-21 ....Drlg. 2,480 ft.
Pharis Oil Co.'s No. 5 Smith, 660 ft. from N and W, SW, Sec. 14, Blk. Y, M.&C. Sur. ....Shut down.
Stanolind O. & G. Co.'s No. 4-A Ware, 330 ft. S and W NE, Sec. 124, Blk. 4, L.&G.N. Sur. ....Running 10-in. csg; T.D. 1,182 ft.
Steckel Prod. Co.'s No. 2-D Whittenburg, 1,065 ft. from S and W, Sec. 38, Blk. M-23, T.C. Sur. ....T.D. 3,035 ft; to shoot; swabbed 200 bbls.
Texilvania Oil Co.'s No. 1 Haile, 330 ft. S, 280 ft. W, Sec. 16, Blk. 1, E.L.R.R. Sur. ....Drlg. 450 ft.

LIPSCOMB COUNTY

Okla. Public Service Co.'s No. 1 C. W. Jones, NE SW, Sec. 100, H.&T.C. Sur. ....T.D. 5,003 ft.

MOORE COUNTY

Canadian River Gas Co.'s No. 2-A Perkins, 3,250 ft. S of most northerly NE cor, 200 ft. W of E line, Sec. 54, Blk. 47, H.&T.C. Sur. ....Standardizing.
Dogie Oil Co.'s No. 1 Greenwald, 330 ft. from N and W, Sec. 277, Blk. 44, H.&T.C. Sur. ....Drlg. 2,175 ft.
Shamrock Oil & Gas Co.'s No. 2 Brumley, 330 ft. from N and W, Sec. 360, Blk. 44, H.&T.C. Sur. ....Cmtd. csg.; T.D. 3,368 ft.
Shamrock Oil & Gas Co.'s No. 1 Burnett, 660 ft. from S, 330 ft. from W, Sec. 359, Blk. 44, H.&T.C. Sur. ....S.D. 3,535 ft.

MOTLEY COUNTY

Matador Oil Corp.'s No. 1 Owens, C NE, Sec. 10, Blk. G, B.&B. Sur. ....S.D. 530 ft.

OLDHAM COUNTY

Amalgamated German-American Oil Corp.'s No. 1 Norton, 330 ft. S and E, Sec. 12, T.&N.O. Sur. ....S.D. 400 ft.
Chambers et al's No. 1 Herring, CNL, Sec. 20, Blk. S, G.C.&S.F. Sur. ....Sidetrack 8-in. csg. to drill by with rotary.

ROBERTS COUNTY

Chicken Creek Oil Co.'s No. 1 Ledrick, 330 ft. N and W, Sec. 55, Blk. C, G.&M. Sur. ....S.D. 4,795 ft.

WHEELER COUNTY

Delaney et al's No. 1 Sitter, 330 ft. from S and W of E half NE, Sec. 33, Blk. 24 ....Estm. 70,000,000 ft. gas; T.D. 2,190 ft.
Devore & Robinson's No. 1 Sitter, 2,310 ft. from S and E, E½, Sec. 33, Blk. 24, H.&G.N. Sur. ....T.D. 2,760 ft.; S.D. for pipe line connection.
B. M. Rhodes' No. 1 Noel, 330 ft. S and E NE, Sec. 54, Blk. 24, H.&G.N. Sur. ....Moving in material.

Corporation Commission Hearings and Petitions to Court, Feature of Week in Oklahoma

By W. A. SPINNEY
Staff Correspondent, Oklahoma Fields

Oklahoma's daily average production for the week ending December 31, shows a decline of about 40,000 bbls. daily. The average production was estimated at 356,895 bbls. daily.

The corporation commission issued a new proration order for the Oklahoma City Field, fixing the allowable at 74,333 bbls. which was effective January 1, 1933. The new order fixing the allowables for wells in that field for January was under the zone plan. The order fixed minimum allowables and also wells that are making 10 per cent or more water are allowed 100 bbls. a day in addition to their potential allowable.

The commission sought to rule on the allowables as well as follow the decision of the State Supreme Court's opinion on the H. F. Wilcox Oil & Gas Co.'s case and prepare the way for a more detailed order to be issued later in the month. The new allowable order is expected to settle the difficulties encountered in the past in that field.

The new order states in part, that each and every well in the Oklahoma City Field, and in the four common sources of supply therein, shall be entitled to a minimum production of 30 bbls. of oil a day, which minimum production shall be in lieu of the allowable based on the potential of such well.

The order also states that all wells making an excess of 10 per cent water under tests shall be entitled to a water allowable of not to exceed 100 bbls. a day, in addition to their potential allowable. At this time there are only a few wells in the Oklahoma City Field outside of the Silicious lime zone that are making 10 per cent or more water and most of these wells are producing from the Simpson sand.

It is believed that under this new plan the difficulties that have resulted in litigation on the allowables in this field will be settled. A number of cases have been before the commission during the last year and the operators in the field have been divided into a number of factions.

Wildcat in Searight District

Another wildcat unit operation was started during the week northeast of the Searight Pool, in Seminole County. It is Carter Oil Co., Gypsy Oil Co. and Sinclair Prairie Oil Co.'s No. 1 in the NW cor. NE, Section 2-10-6. The test is being drilled on a block of 1,200 acres located in Sections 35-11-6 and 2-10-6. This area has been worked with a seismograph.

Three new test wells were starting in the southern part of Oklahoma. Two of these are in the Tatums Pool in Carter County and the other on the edge of the Healdton Field. The majority of the field work in the southern part of the State has been shut down because of cold and rainy weather.

Magnolia Petroleum Co.'s No. 2 Hooks, NW cor. SW SW, Section 13-1s-3w, is a location offsetting a recent producer. Carter Oil Co.'s No. 3 Robb, SW cor. SE NW, Section 19-1s-2w, is preparing to spud. It is located on the east side of the Tatums Pool.

Schermerhorn-Ardmore Oil Co.'s No. 1 Feagin, NW cor. SW, Section 19-4s-2w, Carter County, on the south edge of the Healdton Field, was about ready to start spudding. This location is a half mile south of the same company's No. 15 Dilly, a recently completed well that made 40 bbls.

Oklahoma City Operations

During the week ending December 31 two locations were made in the Oklahoma City Field, Indian Territory Illuminating Oil Co.'s No. 2 G. Lord, NE cor. SE NE Section 35-11-3w, and same company's No. 2 Wickline, C SE SW NW Section 26-11-3w, each an offset to a completed well in the south end of the field.

Phillips Petroleum Co.'s No. 1 Logue, SW cor. NE SW Section 15-11-3w, flowed 1,638 bbls. of oil in 1 hour and 39 minutes from the Wilcox sand at a total depth of 6,474 feet. The gas was estimated at 22,000,000 feet a day.

On the north edge of the field the American Oil & Refining Co.'s No. 1 Whitfield, SE cor. SE NE SE Section 34-12-3w, was recompleted. It flowed 3,943 bbls. of oil in 3 hours and 23 minutes through a 4½-inch choke. The gas was estimated at 80,000,000 feet a day. The total depth of the well is 6,414 feet, which is 2 feet below the old total depth. When the well was first completed in June, it was given a potential of 11,498 bbls. a day and the gas at that time was estimated at 180,000,000 feet a day. The well started sanding up, which practically killed the flow of oil and gas before it was reconditioned.

Ask For Rehearing

The Oklahoma Corporation Commission filed a petition with the State Supreme Court during the week asking for a rehearing and for a modification of opinion in the H. F. Wilcox Oil & Gas Co.'s proration case.

The 15-day period for further intercession in the case would have expired Wednesday, December 28. Under the opinion of the court, the Wilcox Oil & Gas Co. would be permitted to produce its 10 wells in the Oklahoma City Field, which were shut down by the commission on its order of July 21, 1932, after the company was alleged to have overproduced under the existing proration orders. The court's opinion was based on an error in procedure and it is further ruled that the commission could not shut down all wells of the company in the field when perhaps only one well was overproduced.

The commission's petition to the State Supreme Court states that the opinion is not clear and in other respects conflicts with express provisions of the statutes.

The petition asks the court to clarify several of its opinions which are, where the court said its rules must be made by general order applicable to all cases. It may not make special rules applicable to special cases. The commission claims in its petition that different conditions exist between pools and in areas within oil pools. It is believed the commission must have the power to deal with these various conditions as they exist or arise, so as to prevent, as the statute provides it shall prevent, the waste of oil. The court also said that, when the corporation commission acts in a legislative capacity for the purpose of making rules, it may ascertain in any manner it sees fit what rules should be made, and it may make such rules without the hearing of evidence, or without regard to the evidence heard.

The petition of the commission, claims that in as much as the statute provides that the commission shall set a time and place when and where the hearing shall be had, and gives notice thereof, and authorizes the commission to summon witnesses, and that evidence shall be taken for the purpose of informing the commission of the true facts, how would the supreme court review the action of the commission in making such an order, if the record was not made at the hearing.

From the Common Pool

On the court's opinion on taking oil on the per well basis and the commission's power to shut down a producing well because the operator has overproduced some other well, the commission's petition states that each producer, without regard to how many wells he may own, should take from a common source of supply only such proportion of all crude oil and petroleum that may be produced therefrom as the production of the well, or wells, bear to the total production of such common source of supply. This is a limitation, not by wells but upon the total amount of oil which the person may take from the common source of supply within any given time. The statute does not say that the production shall be on a per well basis.

The petition asserts that the opinion leaves the status of the commission's legislative orders in doubt, in that the commission is uncertain whether the court, by its opinion, meant to hold that the legislative orders heretofore made by it applicable to this field are void, or are merely reversible on such direct appeals therefrom as may be taken within the statutory time.

Slight Increase in Demand

It was disclosed at the Corporation Commission's hearing on December 29 that there was a slight increase in the demand for crude oil during the last three months of 1932. This was established at the statewide hearing to fix the allowables for the first three months of 1933.

Ray M. Collins, state umpire, stated that the conditions outside the Oklahoma City Field would be about the same as at the close of the year and he believed there would be no appreciable change in the demand during the first three months of 1933.

The only change of importance in the State was in the Oklahoma City Field, and hearing on these allowables was held last week, and a slight gain was reported. Mr. Collins said there would be a 500-bbl. per day increase in the Little River Pool for January.

The total demand for the State on October 1 was fixed at 381,790 bbls. a day and the State's potential at that time was 4,328,667 bbls. The January 1 allowable was estimated at 386,003 bbls. per day, with the potential of the State placed at 5,128,337 bbls. In both instances the Oklahoma City Field's potential is figured on the adjusted basis of one-third of the 24-hour potential flow; in all other fields the 24-hour flow was considered.

The following table shows the allowable of the different pools in the State as of the first of October, December and January:

Pools—	Oct. 1	Dec. 1	Jan. 1
Class "A"	24,864	24,424	24,424
Class "B"	118,290	121,810	122,310
Class "C"	14,700	13,535	13,535
Okla. City	72,750	73,510	74,333
Wildcats	1,050	825	825
Others	150,136	150,576	150,576
Total	381,790	384,680	386,003

The status of the Class "B" pools in the State was read into the records at the hearing and the potentials for January were the same as in December. The following table shows the rated potential for January:

Pool—	Pot.
Allen	17,974
West Asher	8,730
Carr City	20,179
Bowlegs	25,177
Old Earlsboro	23,498
East Earlsboro	18,754
Earlsboro (townsite)	2,876
South Earlsboro	4,552
Konawa	8,280
Little River	38,750
East Little River	2,956
Maud	1,558
Mission	14,667
Sasakwa	2,274
Searight	5,825
Seminole	23,256
East Seminole	2,076
West Seminole	20,938
St. Louis	35,262
Strippers	4,381
	281,963

The estimated potentials for the balance of the State are shown in the following table. R. M. Collins testified that there would be little change in the demand for January from these fields.

Pool—	Pot.
Chandler	5,601
Fish	34,740
West Konawa	2,175
Orlando	900
West Perry	2,425
Tatums	57,886
Wewoka	4,216
	107,843
WILDCAT DISTRICTS	
East Earlsboro	9,722
County Line*	4,154
Section 6-6-5	166
Lucien	1,835
Marshall	1,140
	17,017

*Lincoln and Creek Counties.

MISCELLANEOUS AREAS	
Class "A"	43,813
Others	156,187
	200,000

Ray M. Collins, state umpire, was the only witness at the hearing and only one of the corporation commissioners was present, and it is believed for this reason a new allowable order for fields outside Oklahoma City was not issued for the month of January, but the old order will remain in effect.

Withdrawals by Buyers

Mr. Collins also said that it was his understanding that the Mid-Kansas Oil & Gas Co. is gradually withdrawing as a purchaser of crude oil in the State, and for this reason some adjustments may be necessary in January. The Shell Pipe Line Co. is expected to withdraw from about 1,000 bbls. of oil daily it has been taking in the Graham Field in Carter County, and the Barnsdall Oil Co. is expecting to drop all of its connections in Osage County during January.

He also said he was in favor of taking new potentials for all wells, other than strippers, in the State in order to arrive at a more accurate figure for computing the State's reserves. He said that the purchasing companies could not take the full outlet of the fields in the State, outside of Oklahoma City Field, at this time, and to raise the allowable might cause both actual and economic waste.

The oil production from the Siliceous lime zone in the Oklahoma City Field for the first 19 days of December totaled

11,537 bbls. or 554 bbls. daily and was divided as follows:

Company—	Wells	Bbls.
I. T. I. O.	8	4,632
Colline	3	2,107
Sinclair Prairie	4	2,702
Shell	2	1,557
Mid-Kansas	2	478
Total	19	11,537

New adjusted potentials that have been granted to wells in the Oklahoma City Field by the military detachment during the week include:

Company and well—	Bbls.
I. T. I. O. No. 1 Jarvis	7,702
I. T. I. O. No. 1 Miller	209
I. T. I. O. No. 1 H. G. Little	1,173
I. T. I. O. No. 10 Okla-State	1,631
Phillips No. 1 Rock Island	3,610
Russell No. 1 Russell	619

For the month of January there will be 16 wells in the Wilcox sand zone in the Oklahoma City Field with a combined adjusted potential of 133,820 bbls. not eligible for production during that month. Five wells in the Simpson sand zone with a combined adjusted potential of 12,352 bbls. are in the position. These 21 wells have a combined potential of 146,173 bbls.

Carter County

Solar Exploration Co.'s No. 1 Robinson, NW cor. NE NW Section 32-1s-2w, is a rig. Amos Drilling Co.'s No. 2 Short, SE cor. SW SW Section 18-1s-2w, is a rig. Carter Oil Co.'s No. 3 Robb, SE cor. SW SW NW Section 19-1s-2w, was drilling at 800 feet. Same company's No. 1 Hooks, C NE SW NW Section 19-1s-2w, made 400 bbls. from 1,541-1,828 feet. B. L. Lundy's No. 1 Majors, NE cor. SE SE Section 25-1s-3w, was completed for 174 bbls. from 2,467-2,501 feet.

Creek County

Bailey and others' No. 1 Smith, CEL SW SE Section 18-19-9, is a rig. Holmes Oil Co.'s No. 1 Deen, SW cor. NE Section 25-19-9, is a rig. Buckles' No. 3 Tiger, C8L SE SE Section 22-18-8, is a rig. Robinson's No. 1 Prince, NW cor. SW Section 3-18-8, is a location. Marrs' No. 1 Tiger, NE cor. Section 34-18-8, is a machine. Hazelwood and others' No. 2 Rentie, NW cor. SE SE Section 32-19-9, was drilling at 2,100 feet. Johnson Oil & Refining Co.'s No. 7 Evans, NE cor. NW NW Section 29-19-9, is a machine. Same company's No. 2 Boyd, NW cor. NE NW SW Section 29-19-9, was drilling at 1,000 feet. Same company's No. 6 Evans, SE cor. NW Section 29-19-9, was completed for 75 bbls. from 2,135-73 feet. A. W. Swift's No. 1 Coonrod, SW cor. NE NW Section 3-19-9, was drilling at 1,000 feet.

Hughes County

Boettcher Oil & Gas Co. and others' No. 1 Jacobs, NE cor. SE SE Section 9-7-8, was completed at 2,902-18 feet for 418 bbls. in four hours. Hall's No. 1 Chapman, SE cor. Section 10-7-8, made 10 bbls. from 1,190-1,206 feet. Limestone Oil & Gas Co.'s No. 5 Walker, SE cor. NE Section 15-7-8, made 50 bbls. from 1,207-27 feet. Mid-Continent Petroleum Corp.'s No. 1 Factor, NE cor. SE Section 15-7-8, made 22 bbls. from 1,175-1,210 feet. Robinson & Hicks' No. 1 Jacobs, NW cor. Section 15-7-8, made 129 bbls. in 18 hours from 2,883-2,927 feet. Peacock and others' No. 1 Walker, NW cor. NE NW Section 22-7-8, was abandoned at 1,200 feet. Royce and others' No. 1 Walker, NE cor. SE NW Section 22-7-8, made 35 bbls. in 12 hours from 1,178-94 feet.

Marshall County

Peacock and others' No. 1 Hornbeck, NW cor. NE NW NE Section 10-7s-6, is a location. Kingston Oil & Gas Co.'s No. 2 Adams, SE cor. SW SW SE Section 31-7s-6, is a machine. Same company's No. 1 Adams, NE cor. NW NW NE Section 6-8-6, made 10 bbls. from 556-61 feet.

Muskogee County

Braman Oil Co.'s No. 7 Jackson, C SE NW Section 8-13-16, is a rig. Foltz' No. 3 Benmo, NW cor. NE NE Section 8-15-18, is a rig. Same operator's No. 3 Island, SE cor. NW Section 8-15-18, is a machine. Thompson & Jordan's No. 5 Sandy, SE cor. NE NE Section 15-13-15, is a location. Jolly and others' No. 1 Gibson, NE cor. NW NE SW Section 8-15-18, was shut down at 800 feet.

Oklahoma County

Indian Territory Illuminating Oil Co.'s No. 2 Wickline, SE cor. SW NW Section 26-11-3w, is a location. Same company's No. 2 G. Lord, NW cor. NE NE Section 35-11-3w, is a location. Inland Development Co.'s No. 1 Alpha, SW cor. NW SE Section 22-11-3w, made 4,310 bbls. in four hours from 6,478-6,591 feet. Indian Territory Illuminating Oil Co.'s No. 1 Wisel, SW cor. SE SE Section 26-11-3w, made 3,012 bbls. in 10 hours from 6,482-6,521 feet.

Okmulgee County

Claude Drilling Co.'s No. 6 Hawkins, SE cor. NW Section 4-11-12, an old well drilling deeper, was cleaning out at 1,680 feet.

Okfuskee County

The Texas Company's No. 1 Gregory, NW cor. NE Section 36-10-11, an old well drilling deeper, made 98 bbls. from 3,182-90 feet.

Pawnee County

Hambley's No. 1 Mills, SW cor. NW SE Section 20-20-10, is a rig. Murringold and others' No. 1, NE cor. NW NW SW Section 30-21-9, made 15 bbls. from 1,055-1,110 feet.

Pontotoc County

Choctaw Oil & Gas Co.'s No. 1 Thompson, SW cor. NE SW Section 1-1-7, is a location. Great Lakes Oil & Gas Co. and others' No. 1 Delaney, C E half NW NE Section 29-5-8, made 60 bbls. from 896-912 feet.

Seminole County

Carter Oil Co.'s No. 1 Keokuk, C N half NW NE Section 2-10-6, is a location.

Stephens County

Magnolia Petroleum Co.'s No. 2 Hooks, C8L NW SW SW Section 16-1-8w, is a rig. Becker and others' No. 1 Wilson, C E half NE SW Section 20-2-7w, is a rig. Same operators' No. 1 Bunch, NE cor. NW SW Section 21-2-7w, was abandoned at 2,198 feet. Mudge Oil Co.'s No. 9 Heenan, CWL NW NE NW Section 24-2-4w, an old well drilling deeper, made 4 bbls. from 840-47 feet. California Producing & Oil Co.'s No. 1 Garrett, SE cor. NE SE Section 11-3-6w, made 5,000,000 feet of gas from 325-43 feet.

Tulsa County

Bryan Petroleum Co.'s No. 1 Cooper, C NW SW Section 26-17-14, is a location. Rader and others' No. 1 Bittles, SW cor. SE NE Section 13-16-12, was abandoned at 2,270 feet.

Wildcat Operations in Oklahoma

Northern Oklahoma

ATOKA COUNTY

Company, farm and location—	Remarks:
Independent Oil Co.'s No. 1 D. James, C NE NE Sec. 28-2-15	S.D. 75 ft.
Barton's No. 4 Miller, SE NW SE SW Sec. 26-1-14	S.D. 505 ft.
Hicks' No. 2 Morris, SE NE NW SE Sec. 5-1-15	Drlg. sand 175-262 ft., estimated 2 bbls.
George's No. 1 Reddin, SW NE SW Sec. 19-1-15	S.D. 640 ft.

BECKHAM COUNTY

Pattel Royalty's No. 1 Goose Tree, SW SE SW SE Sec. 32-10-23w	S.D. 1,865 ft.
Mid-Texas Co.'s No. 1 Sidell, NE cor. SW SW Sec. 17-22-22w	S.D. 2,550 ft.
White et al's No. 1 Green, SW cor. Sec. 34-10-24w	S.D. 3,575 ft.

BLAINE COUNTY

Watonga Petroleum Co.'s No. 1 Masters, SW NW NW, Sec. 27-16-11w	S.D. 1,205 ft.

CADDO COUNTY

Denver P. & R. Co.'s No. 1 Noe, NW SW SW Sec. 34-10-10w	Rig.
Abernathy & Brown's No. 2 Houston, Sec. 24-6-13w	S.D. 1,115 ft.

COAL COUNTY

Dodd & Burton's No. 1 Grigsby, NW SE NE Sec. 25-1-8	S.D. 1,100 ft.
Funk & Russell's No. 1 Miller, SE NE Sec. 10-2-8	S.D. 2,750 ft.

COMANCHE COUNTY

G. W. Stogner's No. 1 Doebel, C SW SW Sec. 3-3-9w	S.D. 1,450 ft.

CREEK COUNTY

O. O. Owen's No. 1 fee, NW cor. Sec. 23-15-7	Drlg. 2,000 ft.

CUSTER COUNTY

Miley Pet. Co.'s No. 1 Caldwell, NE Sec. 13-14-14w	Location.

ELLIS COUNTY

Algers Pet. Co.'s No. 1 Roper, C SE NW Sec. 21-26-24w	S.D. 50 ft.

GRADY COUNTY

English Drlg. Co.'s No. 1 Heenan-Coe, NE SE NE Sec. 32-3-7w	S.O. 2,255-87 ft; S.D. 3,504 ft.

GARFIELD COUNTY

E. L. Love et al's No. 1 White, SE cor. NW Sec. 9-24-6w	S.D. 5,850 ft.

GREER COUNTY

French's No. 1 Murphy, SW NW Sec. 23-7-21w	S.D. 1,645 ft.

HASKELL COUNTY

Ault et al's No. 1 Hall, NW SW SW Sec. 14-9-19	S.D. 2,000 ft.
Ault et al's No. 1 Hall, SE NW Sec. 25-19-9	S.D. 200 ft.

HUGHES COUNTY

Nash-Redwine's No. 1 Uri, C NE Sec. 10-5-11	Drlg. 385 ft.

KAY COUNTY

Lewis et al's No. 1 Harris, SE NW Sec. 14-25-1	Location.
Mummert Drlg. Co. et al's No. 1 Cormick, C NW SE Sec. 9-27-2	S.D. 3,693 ft.

KIOWA COUNTY

Emenhiser et al's No. 1 Pace, SW cor. Sec. 3-4-17w	Location.
McWhirter et al's No. 1 Vanderneck, NE NW Sec. 3-7-19w (O.W.D.D.)	T.D. 1,902 ft.; C.O.
McWhirter Bros.' No. 1 Kline, SE NW Sec. 5-6-16w	S.D. 830 ft.
Christian's No. 1 Jones, NE SE Sec. 8-7-18w	S.D. 1,610 ft.

LOGAN COUNTY

Eason Oil et al's No. 1 Gun Club, NW NE Sec. 10-16-4w	Drlg. 6,205 ft.

NOBLE COUNTY

Stanolind O. & G. Co. et al's No. 1 Kalb, C NE NW, Sec. 33-20-2w	Drlg. 4,875 ft.
Rollins et al's No. 1 Frank, SE SW Sec. 6-20-2w	Rig.

OKLAHOMA COUNTY

Carter Oil et al's No. 1 Shawbell, C SW NE Sec. 1-12-4w	Wilcox 7,110-41 ft; wtr.; S.D.
Citizens Oil Co.'s No. 1 Sage Barber, NE cor. Sec. 21-11-3w	S.D. 1,200 ft.
L. C. Hivick's No. 1 Sunset Addition, NW SW NW Sec. 17-11-3w	S.D. 5,515 ft.

PAWNEE COUNTY

G. N. Mainess and Westfield Drlg. Co.'s No. 1 Schildberg, NW SW NW Sec. 27-22-6	Drlg. 250 ft.
Deep Rock's No. 1 Crow, NE SE Sec. 26-22-5	Drlg. 500 ft.
Rookstool's No. 1 Wylie, NW NE SW Sec. 6-20-5	S.D. 1,950 ft.

PITTSBURG COUNTY

Moffett & Hall's No. 1 Jones, NW cor. Sec. 14-8-14	S.D. 1,675 ft.

PONTOTOC COUNTY

Delaney's No. 1 Harden, NE SW Sec. 30-2-7	S.D. 875 ft.
Blackwell Oil & Gas Co.'s No. 1 Abbott, NW SW NE Sec. 14-4-6	Drlg. 1,100 ft.
Williams' No. 1 Krath, NE SE Sec. 33-3-4	S.D. 1,545 ft.
Edna Marie's No. 1 McWhirt, NE SE Sec. 11-3-6	S.D. 570 ft.
Sunray Oil's No. 1 Grant, SE NE Sec. 11-4-8	Drlg. 3,096 ft.

POTTAWATOMIE COUNTY

Payne Drlg. Co.'s No. 1 Lovelace, NW SW NW Sec. 27-6-4.	Rig.

ROGER MILLS COUNTY

Ute Oil Co.'s No. 1 Williams, C SW Sec. 23-12-24w	S.D. 5,150 ft.
L. C. Hivick's No. 1 Davis, C NW NE Sec. 4-11-26w	S.D. 3,420 ft.

SEMINOLE COUNTY

Donnelly et al's No. 1 Shepard, SE NE Sec. 4-8-8	Sand 1,395-1,405 ft; wtr. 1,500 ft; S.D.

WASHITA COUNTY

Miley Pet. Co.'s No. 1 Montgomery, SW NW SE NW Sec. 23-9-17w	S.D. 1,004 ft.
Miley Pet. Co.'s No. 1 Wolfe, NE SW Sec. 23-9-17w	Rig.
Cooper & Terhune's No. 1 Blocker, NW cor. Sec. 29-8-19w	Show oil 2,459-67 ft.; S.D. 2,757 ft.
Burns & Prince's No. 1 Deck, SW cor. Sec. 21-8-18	S.D. 2,160 ft.

Oklahoma Panhandle

TEXAS COUNTY

Three Way Oil Co.'s No. 1 Crane, SW NW Sec. 11-1-1E	T.D. 4,720 ft; abd.

Southern Oklahoma

ATOKA COUNTY

L. E. Stewart et al's No. 1 Stewart, SE SE Sec. 2-4s-10	Drlg. 850 ft.
Brookshire's No. 1 R. W. Rowland, NW NE SE Sec. 13-3s-10	S.D. 2,425 ft.

JEFFERSON COUNTY

G. W. Haines' No. 1 Woolsey, SE SW NE Sec. 4-3s-6w (O.W.D.D.)	C.O. 2,261 ft.

MARSHALL COUNTY

Lee Cross' No. 1 Hamlin, SE SW SW Sec. 26-6S-5	S.D. 753 ft.
Thomas' No. 1 Setliff, SW SE SE SW Sec. 36-5s-6	S.D. 645 ft.

McCURTAIN COUNTY

Stampfs' No. 1 Robert Harris, SW NW SW Sec. 14-9s-25	S.D. 2,778 ft.

PUSHMATAHA COUNTY

Whitehead et al's No. 1 Messer, SE SW SW Sec. 35-3s-18	S.D. 2,096 ft.

STEPHENS COUNTY

Geo. Pace et al's No. 1 Peck, NW SW Sec. 32-1s-6w	Abd. 1,904 ft.
Calif. Prod. & Oper. Co.'s No. 1 Garnett, SE NE NE Sec. 11-3s-6w	S.D. 326 ft.
Calif. Prod. & Oper. Co.'s No. 1 Suton, NE SE SW Sec. 12-3s-6w	Rig.
Cooley No. 1 Cooley, NW SE NW Sec. 17-2s-5w	S.D. 1,850 ft.
Gillette Bros.' No. 1 Ryan, NW SW NE Sec. 31-3s-15	S.D. 610 ft.

LEGAL

Notice of sale of oil and gas leases, Department of the Interior, United States Land Office, Billings, Montana, Nov. 22, 1932. Notice is given that the following described lands are offered to the qualified bidder of the highest amount offered per acre as a bonus for the privilege of leasing the land under Sec. 17 of the act of February 25, 1920 (41 Stat. 437), at the royalty rates fixed in the standard lease form, copy of which may be procured from the Commissioner of the General Land Office: Montana, M. M. Unit No. 1—Ash Creek Field—160 acres: T. 12 N., R. 57 E., Sec. 28, NE¼; Unit No. 2—Cabin Creek Field—314.20 acres: T. 10 N., R. 58 E., Sec. 18, SE¼; T. 11 N., R. 58 E., Sec. 30, W½; Unit No. 3—Cabin Creek Field—279.72 acres: T. 9 N., R. 58 E., Sec. 4, W½ NW¼, NE¼ SW¼, SE¼; Unit No. 4—Baker Field—296.65 acres: T. 8 N., R. 59 E., Sec. 6, Lot 1, SE¼ NE¼; Sec. 3, W½ NW¼, E½ SW¼, W½ SE¼; Unit No. 5—Baker Field—271.15 acres: T. 8 N., R. 59 E., Sec. 3, E½; Unit No. 6—Baker Field—320 acres: T. 8 N., R. 59 E., Sec. 25, SW¼ NW¼, SW¼, SW¼ SE¼; Sec. 26, SE¼ NE¼, NE¼ SE¼; Unit No. 7—Lookout Field—639.64 acres: T. 6 N., R. 60 E., Sec. 4, SW¼; Sec. 6, N½ NE¼; T. 7 N., R. 60 E., Sec. 31, W½ SE¼; Sec. 32, N½; Unit No. 8—Lookout Field—639.91 acres: T. 6 N., R. 60 E., Sec. 2, W½; Sec. 10, S½ N½, N½ S½; Unit No. 9—Hidden Water Field—560 acres: T. 5 N., R. 60 E., Sec. 10, SW¼ NE¼, NW¼ NW¼, S½ NW¼, SW¼; Sec. 26, NW¼ NW¼, NW¼ SW¼; T. 6 N., R. 61 E., Sec. 30, S½ S½; Unit No. 10—Little Beaver Field—320 acres: T. 4 N., R. 61 E., Sec. 14, W½; Unit No. 11—Little Beaver Field—119.75 acres: T. 4 N., R. 62 E., Sec. 26, Lots 3 and 4; Sec. 31, S½ NW¼. Bids may be considered for one or more leases of an area of 640 acres each, the same individual, company, or association, being limited to an aggregate of not more than 2560 acres within the known structure of the same field. The successful bidder shall agree in writing to the stipulations contained in the "Regulations Governing the Sale of Lands under Sec. 17 of the Act of February 25, 1920", approved September 22, 1932, copy of which may be procured from the oil and gas supervisor, Casper, Wyoming, or the Commissioner of the General Land Office. The sale will be held at this office at 10:00 a.m. on January 11, 1933. The successful bidder must deposit on the date of the sale with the Register of the Billings land office certified check on a solvent bank, or cash, for one-fifth of the amount bid by him and file the showing of qualifications to receive a lease required by Sec. 15 of the oil and gas regulations. Bidders are warned against violation of the provisions of Sec. 59, of the United States Criminal Code, approved March 4, 1909, prohibiting any unlawful combination or intimidation of bidders. The right is reserved to reject any and all bids in the discretion of the Secretary of the Interior.

HARRY W. HILL, REGISTER.

Mabee Pool in Kansas Opened by Court Order; Holidays Cause Drop in State's Production

By W. A. SPINNEY
Staff Correspondent, Kansas Fields

Derby Oil Co. was granted a temporary injunction against the Kansas Public Service Commission from enforcing a decree closing all the producing wells in the Mabee Pool in McPherson County. The company is seeking a permanent injunction.

The closing order of the commission, issued on December 31, 1932, followed a reversal of the commission's position. Only recently it had issued an order declaring this pool to be a separate and distinct producing area from the Voshell Pool. The Derby Oil Co. had nominated to purchase 2,000 bbls. a day from the Mabee Pool.

Without any notice the commission issued the order closing the wells in this pool, and State Umpire L. R. Pickrell sent men to the various properties sealing the wells. Producers were informed that the wells would remain shut in until January 5. In the meanwhile the commission expected to prepare a new allowable order for the pool.

The court's ruling set aside the commission's order and allows all the producers in the field to open their wells immediately. It permits the Derby Oil Co. to purchase 2,000 bbls. a day ratably from wells in the pool.

The wells in the Mabee Pool are owned by the Derby Oil Co., J. E. Mabee, Inc., and Shell Petroleum Corp. On December 16 there were four completed wells in the pool, with an estimated potential of 6,894 bbls. daily, all producing from the Hunton lime.

The State's daily average production for the week ending December 31 was estimated at 89,850 bbls., which is a decline of 3,000 bbls. from the previous week.

Wildcat Gas Showing

A wildcat test well in the southwestern part of Ellsworth County found a showing of gas in a shallow horizon indicating the well was logging favorably, and the prospects of opening a new producing area appeared with the finding of the gas in the Mid-Kansas Oil & Gas Co.'s No. 1 Kanak, NE cor. SW Section 15-16-7w, at 1,765 feet in an unidentified horizon. The gas gauged 2,500,000 feet a day. The well will be drilled deeper in search of oil production. The well is logging similarly to the Phillips Petroleum Co.'s well, drilled about a mile and a half to the west, where gas was found at 1,860 feet.

The Mid-Kansas Oil Co.'s No. 1 Kanak also found a showing of gas at 1,010 feet. This test well is being drilled on a block of acreage assembled several years ago.

Mabee Pool Developments

In the Mabee Pool in McPherson County, Mid-Kansas Oil & Gas Co.'s No. 1 Schmidt, NE cor. SE NW Section 33-21-3w, found a showing of water in the chat formation and is shut down preparatory to drilling deeper. Owing to the fact that all the offsets to this well are producing from the Hunton limestone the well will be drilled to that formation. The total depth of the well was 3,216 feet.

Derby Oil Co.'s No. 3 Neufeldt, SE cor. SW Section 21-21-3w, in the south extension to the Voshell Pool, in McPherson County, was drilling out the cement plug. The total depth of the well was 3,396 feet in shale but it is believed to be near the top of the Viola lime formation.

Gypsy Oil Co. has farmed out the SE of Section 7-20-1w, in the south end of the Ritz-Canton Pool, in McPherson County, to G. H. Collingwood and others and they plan to drill a test well in the NW cor SE. The well is the south offset to the recently completed well of Tom Palmer and others, No. 3 Winn, the discovery Wilcox sand well in the Ritz-Canton Pool, which made on its initial production test 996 bbls. of oil the first 24 hours.

A half mile east of the production in the Mabee Pool, in McPherson County, Lario Oil & Gas Co.'s No. 1 Neufeldt, SW cor. NW Section 34-21-3w, has reached the Mississippi lime at 3,324 feet. The test is being drilled with cable tools and the top of the Hunton lime is expected in a few days.

An Interesting Test

An interesting test is being planned for the area west of the Goodrich Pool, in Sedgwick County. G. A. Stearns owns 240 acres in fee and is planning to drill a test well in the SW cor. Section 17-25-1. The location is approximately a quarter of a mile southwest from the discovery well in the Goodrich Pool, drilled by the Continental Oil Co., the No. 1 Goodrich, which has produced approximately 800,000 bbls. of oil from the chat formation since it was completed in December, 1928. The discovery well was drilled to chat to a total depth of 3,021 feet. Several other wells to the east of the discovery well on the Goodrich farm are producing from the Misener sand at approximately 3,300 feet.

The G. A. Stearns test will be the first drilled west of the discovery. At the time the pool was discovered the Marland Oil Co. owned the lease on this land. The Continental Oil Co., now the owner of the Goodrich property, has drilled a number of unsuccessful tests to the east, north and northeast.

Activity in the Hollow Pool, in Harvey County, was increased during the week by the addition of two new locations, Mid-Kansas Oil & Gas Co.'s No. 2 Duerkson, SW cor. SE NE Section 30-22-3w, and W. C. McBride, Inc.'s No. 1 Schmidt, NE cor. Section 30-22-3w.

Skelly Oil Co.'s No. 1 Martens, NW cor. NE SE Section 19-22-3w, was completed for 1,963 bbls. a day from the chat formation. The owners may drill this well deeper to the Hunton lime when a market outlet for the oil from the pool has been established.

Frank Hollow and others' No. 1 A. R. Schmidt, SW cor. NW Section 17-22-3w, found the top of the chat at 3,145 feet and was starting to drill out the cement plug after landing casing at this depth. The test is located about a mile north of the production in the Hollow Pool.

Study, Lloyd and Frost's No. 2 Martens, SE cor. NE SE Section 19-22-3w, in the Hollow Pool, was drilling during the week at 3,010 feet.

The Kansas Public Service Commission will hold a meeting in Wichita, January 5, to hear three complaints. In the matter of the application of Lloyd, Study & Frost for a separation of the Mississippi lime production and discovery rights on its No. 1 A. Martens, SE cor. Section 19-22-3w, Harvey County, Skelly Oil Co. and J. E. Mabee protested against granting this order, which makes it necessary to have this matter heard in a public hearing.

The matter of the application of Tom Palmer for a separation of the Wilcox sand production and discovery rights on the No. 3 A. Winn, SE cor. NW Section 7-20-1w, McPherson County, which has a market nomination of 500 bbls. a day from the Phillips Petroleum Co., if declared to be a common source of supply, will be considered. Objection has been made by the Mohawk Oil Co. and the Syndicate Oil & Gas Co., which makes it necessary that this matter be heard.

In the matter of the complaint of J. D. Stevenson, an owner of part of the royalty of the E half NW Section 27-16-10w, Ellsworth County, on which the Vickers Petroleum Co. owns the lease and purchases the oil, Stevenson claims that the Vickers Petroleum Co. is charging 22 cents a barrel freight to move his share of the crude oil produced on this lease to the company's refinery at Potwin. The price paid for the crude oil is 77 cents, but after the freight deductions, Stevenson receives only 55 cents per barrel, he says.

Shell Petroleum Corp. and others' No. 2 Neufeldt, NW cor. NE SE Section 16-21-3w, in the south extension to the Voshell Pool, in McPherson County, swabbed 14 bbls. an hour on an 18-hour test. It made about 250 bbls. in that time from the Viola lime at 3,438 feet.

Cowley County

Deal Oil & Gas Co.'s No. 2 St. John College, SW cor. NW NW NE Section 27-32-4, is a rig.

Ellis County

Stanolind Oil & Gas Co.'s No. 24 Austin, NE cor. SE SE Section 36-12-16w, an old well drilling deeper, total depth 3,091 feet, plugged back to 3,070 feet and made 5 bbls.

Ellsworth County

Magnolia Petroleum Co.'s No. 1 Andrea, NW cor. SW Section 7-17-10w, is a rig.

Greenwood County

Gardner's No. 1 Johnson, NE cor. SE NW Section 8-25-13, was abandoned at 1,634 feet. Mathews & Rex' No. 4 Reeser, SE cor. NE NE Section 7-24-12, was abandoned at 1,801 feet.

Harvey County

W. C. McBride, Inc.'s No. 1 Schmidt, NE cor. Section 30-22-3w, is a location. Mid-Kansas Oil & Gas Co.'s No. 2 Duerkson, SW cor. SE NE Section 19-22-3w, is a rig. Skelly Oil Co.'s No. 1 Martens, SE cor. Section 19-22-3w, made 2,093 bbls. from 3,178-3,248 feet.

Marion County

Hinkle and others' No. 7 Pfeiffer, SW cor. SE NE Section 14-19-1, was abandoned at 2,850 feet.

McPherson County

Marileen and others' No. 1 McGill, NW SE Section 7-20-1w, is a location. Gypsy Oil Co.'s No. 4 Krehbiel, NW cor. SW Section 3-21-3w, an old well drilling deeper, total depth 3,469 feet, drilled to 3,502-04 feet, to plug back. Derby Oil Co.'s No. 2 Hamm, SW cor. NE Section 33-21-3w, made 2,308 bbls. from 3,451-59 feet. Mabee and others' No. 1 Klassen, NW cor. SE Section 33-21-3w, made 1,464 bbls. from 3,452-58 feet. Same company's No. 1 Koehn, NW cor. SW NE Section 33-21-3w, made 315 bbls. in 21 hours from 3,453-58 feet. Garden & Son's No. 1 Decker, NW cor. NE NW Section 11-20-3w, made 840 bbls. from 2,988-3,027 feet. Carter Oil Co.'s No. 1 Tinsley, NW cor. SE Section 6-20-1w, an old well drilling deeper, made 25 bbls. from 3,428 feet. McPherson Oil & Gas Co.'s No. 3 Lovett, C SE NW Section 13-19-2w, made 819 bbls. from 3,395-3,403 feet.

Rice County

R. Ramsey and others' No. 1 School lot, NW cor. SW NW Section 32-19-9w, made 296 bbls. from 3,237-89 feet.

Rooks County

Boysen and others' No. 1 Silvers, C NE Section 21-8-19w, was abandoned at 3,475 feet.

Sedgwick County

Gypsy Oil Co.'s No. 8 Hamant, SW cor. NW NW Section 14-26-2, is a location. Keith and others' No. 1 Jackson, NW cor. SE SW SW Section 15-25-1, was drilling at 1,500 feet. Derby Oil Co.'s No. 8 Eatsborough, NE cor. SW NE Section 19-27-2, made 102 bbls. from 3,269-70 feet.

Sumner County

Frees Oil Co.'s No. 1 Springate, NE cor. SE SW Section 6-34-2, was abandoned at 4,010 feet.

Woodson County

Sheady and others' No. 1 Ryan, NE cor. SW SW Section 32-24-14, was abandoned at 1,721 feet.

Wildcat Operations in Kansas

(Descriptions are East unless marked otherwise)

BARTON COUNTY

Company, farm and location—	Remarks:
Sinclair Prairie Oil Co.'s No. 1 Turgeon, C NE NW, Sec. 3-16-12w	Drlg. 3,097 ft.
Rankin's No. 1 Sooey, C SW NE Sec. 34-18-12w	Spudding.
Doherty et al's No. 1 Roesler, SW NE Sec. 11-18-11w	S.D. 1,975 ft.
Smith et al's No. 1 Wilson, C NW SW Sec. 13-18-14w	T.D. 3,576 ft.; wtr., abnd.
Skelton Oil Co.'s No. 1 Ott, C SE SE Sec. 16-19-14w	Set liner 3,530-46 ft.; show oil; S.D. 3,605 ft.

COWLEY COUNTY

Roth & Farout's No. 1 Craig, SE cor., Sec. 2-32-3	Drlg. 3,180 ft.

DICKINSON COUNTY

Severs' No. 1 Livingood (Q.W.D.D.), SE NW Sec. 13-13-1.	S.D. 4,900 ft.

ELLIS COUNTY

Phillips Pet. Co.'s No. 1 Unknown, C SW Sec. 33-11-17w	Location.

ELLSWORTH COUNTY

Mid-Kansas Oil & Gas Co.'s No. 1 Kanak, NE SW Sec. 15-16-7w	Drlg. 1,780 ft.
Henry et al's No. 1 Arnsman, C SW SW Sec. 10-15-7w	Rig.
Sinclair Prairie's No. 1 Unknown, C NE NE Sec. 27-15-8w	Drlg. 2,400 ft.
Buckford's No. 1 Burke, C NE SW Sec. 14-14-9w	S.D. 50 ft.
Gurley Bros. and Barnsdall's No. 1 Union Pacific, NW SW Sec. 7-14-7w	Drlg. 3,170 ft.
R. Gear et al's No. 1 Kroboth, SE NW Sec. 12-15-10w	Drlg. 2,646 ft.

FINNEY COUNTY

L. F. Meyers' No. 1 Brown, S SW Sec. 16-25-34w	Completed, 5,000,000 ft. gas 2,635-2,742 ft.

GRAHAM COUNTY

Schleimeyer et al's No. 1 Smith, SE Sec. 24-8-25w	R.U.S.T. 3,615 ft.

(Continued on Page 57)

Miller County, Arkansas, Well Waiting Outlet; Deep Test in Lincoln Parish Abandoned

By D. H. BANCROFT
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Jan. 2.—Results of the acid treatment given Zwolle wells and the performance of Roy E. Baker's No. 1 Beck, Section 33-15-26, Miller County, once it is opened for steady flow continued to be the principal developments of interest during the holiday week. Numerous wells were shut down for the holidays or for other reasons, and very little of importance in those that were active turned up. Both completions and new locations were fewer than for several weeks.

Without pipe line connections, Miller County's first commercial producer is reported not flowing steadily as there is not sufficient storage available to handle it. It is allowed to flow into the pit and the oil pumped out again and hauled to a railroad siding 2 miles away in trucks. When opened, however, and allowed to flow for a few hours at a time it performs as well as on the initial 24-hour test. It is understood that arrangements are under way for a line to a small loading rack to be built on this siding. Meantime, one other well has tested dry, a second is arranging to test and locations have been staked for two new ones.

NORTH LOUISIANA

Aside from Zwolle, the chief development in North Louisiana territory was abandonment of Loring Oil Co.'s deep test in Lincoln Parish. The well, No. 1 Simonton, SE NE Section 25-20-4, approximately 12 miles northeast of the Sugar Creek deep gas field, cored salt water sand at 4,180 and 4,277 feet and was abandoned as dry at 4,348 feet. There is some talk of another similar test on the Loring block but whether it will be made has not been determined.

A. W. Phillips, trustee's No. 1 Oden, Section 4-18-13, 5 miles out of Shreveport in Bossier Parish cored 12 feet of sand claimed to be showing some oil at 1,005-17 feet. Honeycutt Oil Co.'s No. 1 Porter, Section 26-12-13, DeSoto Parish, missed drill stem test at 2,907 feet and is shut down waiting for casing. It reported a gas show in hard sandy shale at 2,855-2,907 feet. E. T. Oaks' No. 1 Bryant and others, a deep test in Section 30-13-15, was coring at 4,482 feet. It is reported to be rather high on the top of the lower cretaceous at 2,864 feet and to have had three slight oil shows; the first at 4,080-89 feet being only an odor in a tight sand, another similar show at 4,141 feet in the same sort of formation and to have recovered a bleeding core in Oolitic lime at 4,240-46 feet. Total depth, however, is 4,482 feet where it was coring again.

One of the four new locations in North Louisiana territory is M. H. Marr's No. 1 Caldwell, SW NE Section 23-16-5, Bienville Parish, on a 12,000-acre block 12 miles south of Arcadia and 18 miles south of the Sugar Creek gas field. J. E. Bundy has derrick pattern on location for No. 1 Walker, SE NW Section 11-18-10, Webster Parish, on a 3,500-acre block, 2 miles south of McIntyre, a small station 5 miles west of Minden. Dr. H. S. Gerson abandoned No. 4 Smith, Section 11-10-8, Natchitoches Parish, on an island in Red River, as a salt water test at 618 feet. When this well was begun it was reported that Gerson planned to drill six more tests in the vicinity of Powhatan, where he developed some shallow gas two years ago. Wong Hing, trustee, well known to El Dorado operators, is drilling No. 1 Union Sawmill Co., in Section 15-27-1e, Union Parish, south of the Farmerville excitement of several years ago during which a dozen or more wells were drilled, several of which were small producers for a short while until salt water took them. This particular wildcat claims 4 feet of sand at 2,426-30 feet and is shut down.

Pelican Natural Gas Co.'s No. 9 Sabine Lumber Co., NE SW Section 3-7-13, Sabine Parish, Zwolle district, was pumping a few barrels of oil from 2,424 feet before acid test and was completed as a 25 bbls. producer at that depth, the poorest showing with one exception of any well that has been given the treatment. The Texas Company's No. 5 Stille, SW SW Section 33-8-11, was dry at 2,620 feet, was given acid treatment and failed to respond, making only a small show of oil but quite a bit of gas. It is listed as temporarily abandoned. Crescent Drilling Co.'s No. 1 Garner estate, NE NE Section 4-7-11, stood 800 feet in oil from 2,327 feet, would not flow and was to be given acid treatment after deepening 25 feet. Gibson & Johnson's No. 2 Frost Johnson, Section 15-9-13, the second well to make more than a small show in the Converse area, also was given the acid treatment and made 100 bbls. the first day but stopped completely after that. Total depth is 1,901 feet, deepened from 1,534 feet where it swabbed 20 bbls. Two other wells that bailed dry after showing oil, H. M. Jones' No. 1 Rainer, NW NW Section 14-7-11, and C. T. Ruffin's No. 1 Lilley, NW NW Section 8-7-11, also were to be given the acid test, the first at 2,660 feet and the latter at 2,376 feet. Both being dry, should the treatment make any sort of producer at all of them, it will still further encourage the use of the process in Zwolle.

Slivey & O'Mara abandoned No. 1 Sabine Lumber Co., SE NE Section 9-7-13, at 2,308 feet without resorting to acid. Two new locations in Zwolle were Paul L. Miller's No. 3 Chadick, SE NW Section 32-8-10, and Perkins & Babbin's No. 1 Hopkins, NE SW Section 11-7-11.

The lease play across the State along the Conroe-Jackson trend in the southern part of the State continues unabated though little has been heard of any plans for immediate drilling as most of the property is being taken on straight 5 or 10-year commercial leases. Some landowners, however, refuse to lease without a drilling clause. The Texas Company, among others, has recorded leases on 1,600 acres in southern Rapides Parish and 3,600 acres in northern Allen Parish, the former in Townships 1 and 2, Ranges 1, 2, 3 and 4w, and Townships 1 and 2, Range 1e, and the latter in Townships 2-5, 3-5, 2-6, 3-6, 3-2, 3-3 and 3-4.

ARKANSAS

While the Miller County disc very well continues to flow at its original 350-bbl. rate whenever opened, Steen Drilling Co.'s No. 1 Head, SW SW Section 20-15-26, 2 miles north, is arranging for a drill stem test at 2,960 feet, claiming sand from 2,933-45 feet. This well was recently taken over from Denis & Cubage. Duluth-Arkansas Oil Co.'s No. 1 H. E. Beck, NW SW Section 34-15-26, east of the discovery well, was dry on drill stem test at 2,935 feet and is shut down. The two new locations are Hapgood and others' No. 1 Rose, SE SE Section 7-16-26, and C. H. Nelson and others' No. 1 Rose, SE NW Section 4-16-26.

Some activity is also beginning to develop in Miller County around the discovery well, the highest price paid for anything so far being $250 cash and $250 out of the first oil for a small tract south of the well. Three new wells are in prospect but the locations have not been staked though permits are said to have been issued for them. Meantime, the usual litigation following completion of a wildcat producer is developing and two suits, one in Federal Court and the other in the Arkansas courts, involving the same properties, have already been filed.

Logan & Elliott's No. 1 Smith, in the northeast corner of Charles Lewis Survey, Bowie County, Texas, was abandoned at 4,503 feet after a salt water test.

MISSISSIPPI

High water has shut down several Mississippi wells as follows: Cleve Love and others' No. 2 Security Realty Co., Section 36-6-1e, Hinds County, at 2,447 feet; P. J. McAlpine's No. 1 Rye, Section 22-15-17, Monroe County, at 2,335 feet; J. A. Baker and others' No. 1 Rankinside Development Co., Section 6-5-2e, Rankin County; Love Petroleum Co.'s No. 2 Interior Lumber Co., Section 28-6-2e, Rankin County, at 2,657 feet. Lowndes County Oil & Development Co.'s No. 1 Carr, NW NW Section 34-17-16, Lowndes County, is dry and abandoned at 2,550 feet. In Mobile County, Alabama, J. C. Prine abandoned No. 1 M.&O.R.R., NE SW Section 33-2n-4w, at 3,800 feet. The well was on a 10,000-acre block, but where another test will be made is not known.

Daily Average Production

Miller County, Arkansas, appears in reports of daily average shipments from the field for the first time this week with an average of 350 bbls., the total daily production credited to the one well in the prospective field. Fourteen cars have been shipped this week but what the unidentified buyers is paying for it was not learned and it is understood that most of that bought has been by refiners who wanted it for test runs.

Shipments from the territory as a whole totaling 62,025 bbls., showed a slight gain—615 bbls. Louisiana runs were 29,225 bbls., an increase of 840, and Arkansas' 32,800 bbls., a decrease of 425 bbls. Acid treatment of Zwolle wells, which has increased production of practically every well on which it has been tried, so far is not reflected in shipments from that field. Runs from the several pools were:

NORTH LOUISIANA	Bbls.
Caddo, light	4,720
Caddo, heavy	1,760
Cotton Valley	675
DeSoto-Red River	1,765
Elm Grove	370
Haynesville	4,130
Holly	270
Homer	2,780
Pleasant Hill	275
Sarepta-Carterville	760
Urania	3,340
Zwolle	3,380
Total	29,225
Last week	28,195
Increase	1,030

ARKANSAS	
Champagnolle	1,550
El Dorado	2,660
Lisbon	460
Miller County	350
Nevada County	900
Smackover, light	2,850
Smackover, heavy	23,070
Stephens	360
Urbana	600
Total	32,800
Last week	33,215
Decrease	415
Both States	62,025
Last week	61,410
Increase	615

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

North Louisiana

AVOYELLES PARISH

Company, well, farm name, section and block—	Remarks:
T. J. Woodley, tr.'s No. 1 Thompson & Kolts, 2,640 ft. E, 200 ft. S, NW cor. Sec. 11-2n-5e	S.D. 2,250 ft.

BEAUREGARD PARISH

Trapp Oil Synd.'s No. 1 Long-Bell Lbr. Co., Sec. 26-2s-10	Location.

BIENVILLE PARISH

M. H. Marr et al's No. 1 Caldwell, 450 ft. E, 150 ft. N. center Sec. 23-16-5	Derrick pattern.
R. S. Ross et al's No. 1 W. M. Beck, NE NE Sec. 3-18-8	Rig up.

BOSSIER PARISH

Breazelle & Steckoll's No. 1 Nattin, C SW NE, Sec. 16-23-14	Set 6-in. 2,967 ft; swabbed; show oil and gas 3,018 ft; S.D.
Breazelle & Steckoll's No. 2 Nattin, 300 ft. S and W, NE cor. NW NE Sec. 22-23-14	Moving in rig.
A. W. Phillips, tr.'s No. 1 Oden, 300 ft. W, 150 ft. N, SE cor. NW NW, Sec. 4-18-13	Cored 12 ft. sand showing oil 1,-017 ft.

CADDO PARISH

Bolinger & Walker's No. 1 Thompson, SE SW Sec. 16-22-14	Drlg. 1,800 ft.

CLAIBORNE PARISH

Leue Oil Co.'s No. 1 Kiner, Sec. 2-21-7	Rigging up.
A. W. Phillips, Tr.'s No. 1 Jehu Knighton, 330 ft. N, 330 ft. E SW cor. NE SE, Sec. 31-20-7	Derrick.
United Gas Public Service Co.'s No. 1 Meadows, approximately 100 ft. S, center E½ E½ Sec. 13-21-5	Rigging up.
Webster Oil Co.'s (was Robertson & Aurand) No. 1 Smith, 200 ft. S and E, NW cor. SE NE Sec. 8-21-7	S.D. 1,564 ft.

CONCORDIA PARISH

M. M. Stokes' No. 1 Pan-American Life Ins. Co., 7,300 ft. W, 300 ft. N, SE cor. irregular Sec. 18-9n-18e	Began Dec. 10; cmtd. 12-in. 160 ft.

DE SOTO PARISH

Baggett et al's No. 1 Moore, 330 ft. S, 330 ft. W NE cor. NW, Sec. 1-12-15	Rig.
Coker et al's No. 1 Boone, 200 ft. N and W, SE cor. SW NW Sec. 12-10-11	S.D. 60 ft.
Donley & Chastain's No. 1 H. Smith, 325 ft. W, 600 ft. N, SE cor. Sec. 31-14-15	S.D. 2,470 ft.
M. B. Gill's No. 1 W. J. Hill, 330 ft. N, 330 ft. E center Sec. 4-10-13	Began drlg. Dec. 1; cmtd. 12½-in. 111 ft.

(Continued on Page 60)

Laurel Field's Biggest Extension Is Recorded by Dyck Oil Co.'s No. 1 Garcia & Villareal

By B. D. STEVENSON
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., Jan. 2.—Dyck Oil Co.'s No. 1 Garcia & Villareal, a mile south of the Laurel Field, came in for around 70 bbls. an hour at 2,215 feet, practically as big as Rosenberg's best wells in the east edge of the pool. It gives the field a big extension which was forecast a week ago by a drill stem test. Two of the South Texas Oil Co.'s (Rosenberg) tests were reported initially as 1,000-bbl. wells. This crude is high gravity, commanding a premium, and the Dyck well gives the field the biggest extension it has had yet.

During the week Reward Oil Co. (Titus & Calloway) made location for a test in Survey 271 located 450 feet north of the Dyck well and between it and the field on acreage the purchase of which was reported last week and also made location for a test about 1 mile southwest of the Dyck well and away from production but in line with the trend the field has taken thus far.

George E. Smith has a tract about a mile southwest of the Dyck well and is getting ready to drill on it.

The Montex Oil Co.'s No. 1 Laurel in Block 5 of Survey 271, on the west side of the pool, is reported abandoned and seems to indicate the limits of the pool on that side.

North Government Wells

North Government Wells Pool got a salt water well on the south end. Magnolia Petroleum Co.'s No. 3-A Hahl, 330 feet from the north and west lines of the northeast quarter of the southeast quarter of Survey No. 45 at 2,311 feet came in salt water. There is a salt water well 660 feet east of it and a producer 660 feet west of it and it seems to give the field a definite trend to the southwest.

Magnolia's No. 2 Hahl-Riley, 330 feet from the north and east lines of the southeast quarter of the northwest quarter of Survey 45, came in for 25 bbls. an hour on the west side of the south end of the field, extending the production line to the west and further accentuating the southwest trend. In the early days of the field many thought the trend would be due north and south, but these water wells seem to swing it to the southwest.

One of the best producers yet completed in the field is The Texas Company's No. 4 Johnson in the northern part of the field, which came in at 2,269 feet gauging 88 bbls. an hour. The best previous completion thus far reported was 90 bbls. an hour.

The north end of the field consists of a double line of producers running up through the middle of Survey No. 42 and The Texas Company's No. 4 Johnson is 600 feet west of the fifth producer from tht north end, being 990 feet from the east line and 330 feet from the south line of the north half of the southwest quarter of Survey No. 42. It necessitates the drilling of a south offset by Seacord & Putnam and the size of the well indicates considerable productive acreage to the west.

A large number of tests were shut down for the holiday week and as a result little progress is reported generally especially in wildcat operations. In the northern Duval County area Buchanan, Schoolfield & Frasher's No. 1 Sling, located several miles northeast of the North Government Wells Pool, is down around 2,000 feet and another week will probably tell all the story about it. The Howeth & O'Neill No. 1 Roos Brothers, in McMullen County, several miles still farther northeast, is also down around 2,000 feet. It has been standing at 770 feet while the crew was used elsewhere.

William B. Stewart's No. 1 Duval County Ranch Co. in Survey No. 362 is rigging up about 3 miles north of the North Government Wells Pool, and Newton on the Welder-Wood ranch in Survey No. 102 is starting up. All of these are along the Reynosa escarpment trend.

For a couple of months Southwest Texas has been having a lot of bad rainy weather greatly interfering with the movement of equipment especially in wildcat territory. For a time it has been impossible to get in and out of the North Government Wells district except by airplane.

Tuleta District

Nothing has happened to brighten up the situation in the Tuleta district in northern Bee County. C.R.&M. and O'Neill's No. 1 Stoltenfus, the third test to drill into the Yegua, got salt water at 4,322 total depth. It also failed to get anything in the Pettus sand at 4,088-4,125 feet.

This well is 1,000 feet northeast of the discovery Pettus sand well of the field and the Taber & O'Neill No. 1 Harris, which also failed in the Pettus sand and got salt water in the Yegua is about 1,500 feet south and 1,000 feet west of the discovery well, and Dirks Brothers' No. 1 fee, which is running about 50 per cent salt water, the discovery well in the Yegua, is a half mile west of the discovery well. It also failed to find anything in the Pettus sand. The pool therefore seems to be rather circumscribed as to both producing horizons at this time.

During the week the Grisham No. 1 Hill, located 1 mile south and 1 mile west, was abandoned at 4,057 feet. It blew out with a little gas at that depth which gave the impression at first that it might make something but it seems to have had no volume.

Saxet Field in Nueces

While work has kept up in the Saxet Field the past week there are no completions reported and two tests are still waiting completion. Capps & Smith's No. 1 Hutchins, in the north edge of the field, failed to get a well in the 4,850-foot sand and continued drilling, being last reported close to 5,000 feet.

Down in Starr County there is much expectancy in the Jeffries-Lambeth Drilling Co.'s No. 1 Starr County Cattle Co., which was expected to get a test this week. Casing was run in last week. It is located 9 miles northeast of the Rio Grande City Pool. It was reported a week ago as making a big gas showing at 1,516 feet on drill stem test.

The Great Plains Oil Co. (Jim Cloud) No. 1 Sanchez in the western part of the county on Survey 344, which showed two fourbles of oil at 887 feet, failed to make much when casing was set and it was drilled in and is continuing to drill ahead. It set 8-inch and the hole was scheduled in the first place to be a 4,000-foot test.

Miscellaneous

C. J. Webster Oil & Gas Co. and D. V. Smith's No. 1 McMahon in Caldwell County, 1¾ miles northeast of the Webster discovery well, the No. 1 McCrory, has been abandoned at 2,401 feet in Edwards and showing a little oil and sulphur water. No. 1 McCrory is a crevice producer and No. 1 McMahon seems to have cut the fault and discloses some interesting geology that may call for the drilling of more tests.

Coyle-Concord Oil Co. has sold an undivided half interest in its block of 15,600 acres and a gas well in southern Colorado County to the Humble Oil & Refining Co. and that company will have charge of further development of the block. The acreage is in the southern corner of the county and extensive geophysical work done in advance of drilling the first test indicated a deep seated salt dome. The discovery well found many sands and of good thickness and passed up one that would have made a big gas well. This block is along the Reynosa outcrop which extends from the Conroe Field in Montgomery County to the Laredo district taking in the Raccoon Bend Field and Pettus en route.

Sarnosa Pool

Sarnosa Oil Corp.'s No. 4 Weil, the first completion in weeks in the southernmost of the group of pools in the Government Wells group in Duval County, at a total depth of 2,430 feet is complete and could not be lowered more than 1,000 feet with the swab. It looks like one of the best wells in that pool and incidentally is an east extension to the pool. It had sand at 2,383-93 feet, shale at 2,393-2,406 feet, sand at 2,406-12 feet, shale at 2,412-14 feet and sand at 2,414-30 feet. The rig is being moved 660 feet south to drill the No. 5 Weil.

C. P. Scott's No. 1 Kidd, 1 mile west of production in the North Government Wells Pool, at 2,264 feet is standing and will likely drill 200 feet deeper. It cored the Cole sand high and had quite a showing of gas and later cored the sand producing in the Government Wells Pool at 2,223-31 feet and attempted to get a core at 2,231-38 feet, but failed to recover all of it. The part recovered showed considerable oil saturation. On subsea it topped this sand at minus 1,707 feet compared to minus 1,745 feet in the nearest producer to the east of it in the North Government Wells Field. This indicates a normal rise and is taken by some to indicate that the production in the field may extend considerably to the west. The thickness of the sand seems to help out this idea also.

Caldwell County

C. J. Webster Oil & Gas Co. and D. V. Smith's No. 1 McMahon, in Caldwell County, on the Luling fault line extension, a wildcat test, seems to have missed all the formations between the Austin chalk and the Edwards and may have missed some of the Edwards. It also indicates that the Edwards is to be found high and that a location a little to the southeast would be a likely producer.

It had Austin chalk from 2,137 to 2,383 feet, a thickness of 246 feet, which is about normal. There was no Eagleford, Buda or Del Rio though the bottom section of what is classed as chalk may be Georgetown. Paleontologists are now working on the problem. That identified as Edwards has characteristics that would indicate that it is not the porous top of the Edwards lime but is tight and compact.

The well is about 1¾ miles northeast of Webster's No. 1 McCrory, which found a cavity in the fault plane and is a producing well, opening a new pool. Geologists are now working on another location which will be back a little to the southeast to get a little farther from the fault line.

Live Oak County

J. E. Harper is abandoning his No. 1 fee in the northern part of Live Oak County at 2,380 feet, 10 feet into the Cook Mountain and dry. At 1,100 feet he had several feet of formation that showed oil but failed to make a test. It was thought at the time to have possibilities of making a well. He is moving the rig a quarter of a mile to the south and will drill another test in the center of Block 40 to the 1,100-foot sand and test it.

Wildcat Operations in Southwest Texas

Week Ending December 31

ARANSAS COUNTY

Company, farm and location—	Remarks:
F. E. Kestler's No. 1 McCampbell, 150 ft. from N and E lines of Lot 1, Blk. 58, McCampbell ranch	T.D. 1,100 ft; drlg.

BANDERA COUNTY

Van Winkle's No. 1 R. B. Watson, 600 ft. N of cen. of S line of Sec. 71	T.D. 400 ft; standing.
E. A. Parkford's No. 1 Duke, 200 ft. from S line, 150 ft. from W line of Sec. 7, G.C.&S.F. Sur.	Location.

BASTROP COUNTY

Champion's No. 1 Rivers	T.D. 1,200 ft; drlg.
J. E. Emanuel's No. 1 H. Klemm, 817 ft. from W line, 300 ft. from S line of tract in R. S. Teal Sur.	Rigged up and standing.
Liberty Oil Co.'s No. 1 Lizzie Davis, 1,300 ft. to NW lines, 450 ft. to SW lines of 50-ac. tract in Geo. A. Stovall Sur.	T.D. 2,396 ft; drlg.
Marts & Beavens' No. 1 Cottingham, 216 varas to NE lines, 2,300 varas to SE lines of Elizabeth Standifer Sur. No. 24; near Elgin	T.D. 400 ft.; drlg.
Ogden & Reed's No. 1 Miers, beginning at the intersection of the C. L. Riddle and W. M. and Viola Riddle tracts, thence W 300 ft., thence S at right angles 150 ft. in W. H. Leech Sur.	T.D. 2,220 ft; in Serpentine; dry.
Ogden & Reed's No. 2 J. W. Mears, 600 ft. W of No. 1 Leach Sur.	Location.
Ogden & Reed's No. 2 Riddle, 600 ft. N of No. 1, J. Gray Sur.	Location.
Ogden & Reed's No. 3 Riddle, 600 ft. N of No. 2, J. Gray Sur.	Location.
Ogden & Reed's No. 4 Riddle, 600 ft. S of No. 1, J. Gray Sur.	Location.
Ogden & Reed's No. 5 Riddle, 600 ft. E of No. 3, J. Gray Sur.	Location.
Ogden & Reed's No. 6 Riddle, 600 ft. E of No. 2, J. Gray Sur.	Location.
Ogden & Reed's No. 7 Riddle, 600 ft. E of No. 1, J. Gray Sur.	Location.
Properties Trading Co.'s No. 1 Henry Freitag, 400 ft. from SE line, 1,800 ft. from NE line of P. Conley Sur.	T.D. 2,204 ft. steel line meas.; waiting on cag.

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Conroe May Have 500 Wells by End of Year; Additional Operators Are Entering Field

By NEIL WILLIAMS
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., Jan. 2.—Completions at Conroe the past week brought the total number of producing wells in that field above the hundred mark, all of which development has taken place since the latter part of June when the first oil well was brought in. The extent of operations is of such proportions that the rate at which new wells are being added is rapidly swelling the potential production of the district, and it now is conservatively estimated that a total of 500 wells will have been completed before the close of another year.

Recent extensions of the productive area have given a stimulus to a new spurt in development activity at Conroe and despite the bogged down condition of the field due to continued rains, 35 new operations were started or locations made the past week. At the close of the week there were 114 operations, including locations and derricks, in the district covering an area of approximately 15,000 acres between present productive limits. New rigs constantly are being moved into the field and with the clearing up of the weather and coming of spring it is expected a still greater development program will be carried on.

New Companies Entering Conroe

It seems now that Conroe has been correctly dubbed as the "Young East Texas" and with the limits undefined in at least two main directions the field may become more than just a "young" East Texas. However, it is not anticipated that the productive area will extend anywhere near to the size of the real East Texas district. The importance of Conroe is readily reflected in the field's "supply row," where at least 12 companies have or will build stores. Until recently supply companies have been reluctant to build stores as it was thought the major development would be in the hands of a comparatively few large companies which would restrict drilling to a minimum and whose operations would not justify the location of stores and warehouses in the field. However, the entrance of a sizable number of additional new companies, both large and small, into the picture has resulted in supply houses rushing to get in on the ground.

Despite the fact that most of the operations were suspended for several days because of the holidays and also that transportation around the field is difficult because of almost impassable roads and trails 12 new wells were completed at Conroe in the week ending Sunday. More than a half dozen additional wells were setting screen or standing cemented on the pay.

Among new operators in the field are: Sun Oil Co., which has made location for two tests, its No. 1 W. S. Stewart in the John M. Real Survey and No. 1 Keystone Mills in the John Bricker Survey. The former is a diagonal offset to the northwest to South Gulf Oil Corp.'s No. 1 Granger, which the previous week extended production a mile to the east. The Keystone Mills test for the present is a key test being location 3,000 feet west of Gulf Coast Drilling & Production Co.'s No. 1 Keystone Mills, A. S. James Survey, the farthest south well of the district, and the nearest production.

Gulf Coast Drilling & Production Co. has definitely given up its No. 1 South Texas Development Co., T.&N.O. Survey No. 9, it being abandoned as dry in shale at 5,940 feet. This test, located as an east extension test on the extreme south end, missed the Conroe sand and was drilled deeper in search of possible lower horizons, and is a definite edge marker for the field in that direction.

The allowable is 18,500 bbls. with daily production of the area running between 23,000 and 25,000 bbls.

Deep Tests Fail

Outside of Conroe no new production of consequence was brought in. Drilling reports generally showed comparatively little change with a large number of operations being at a standstill, either because of suspension of work for the holidays or because of inaccessibility of the tests. Active wildcats are fewer than at any time within several months. A succession of failures of new exploration within the past six weeks has reduced the amount of wildcatting materially and for the most part abandonments have not been offset by new locations.

Two additional deep wildcats were chalked up as failures during the week, these being Gulf Production Co.'s No. 1 American National, located in the E. R. Bradley Survey No. 12 on the Lockridge or Sandy Point prospect, Brazoria County, and Cullen & West's No. 1 Hudgins, Alex Jackson Survey, at Hungeford, Wharton County. The former was quit at a total depth of 6,691 feet, and the latter at 5,768 feet. The Texas Company also abandoned its No. 1 Miller estate, a deep wildcat located 2,600 feet east of the Edgerly Field, Calcasieu Parish, Louisiana. This test was drilled to 6,795 feet and quit in heaving shale. This is one of the few deep tests drilled at Edgerly where development has been confined largely to the shallower horizons.

Although at present there seems to be a slackening of actual wildcat drilling and development on the Gulf Coast due to numerous shut downs and failure of new locations to offset abandonments, this lull is believed to be temporary as there has been no abatement in interest in leasing of wildcat blocks. Weather conditions and the holidays have slowed up leasing and geophysical exploration to a large extent but all companies and operators apparently are still anxious to obtain additional prospects and acreage with a view toward drilling.

Southern Colorado County

Among new wildcat development projects being started up, however, is that on the Coyle-Concord Oil Co.'s block in southern Colorado County where last July a gas well was brought in as the first production of any kind in that county. Humble Oil & Refining Co. has just completed negotiations for taking over development of the block and has made location for its first test, No. 1 Cora Lindley, in the I.&G.N. Survey, Section 42. This location is approximately a mile to the northwest of Coyle-Concord's discovery gasser which has been standing shut in since its completion July 17.

Under terms of the deal, Humble Oil & Refining Co. has reimbursed the Coyle-Concord Oil Co. to the extent of approximately $100,000 in cash, covering about what the latter company expended up to the completion of the gasser, and has obligated itself to drill one well for the privilege of developing the block. With the drilling of the first well, Humble Oil & Refining Co. has the option of continuing development, carrying the Coyle-Concord Oil Co. for an interest.

The block comprises some 20,000 acres, of which approximately 6,000 acres is owned in fee by the Coyle-Concord Oil Co. It is located on the Hockley shore line trend along with Conroe and other such fields. The discovery well, and so far only well, was completed in a sand at a total depth of 4,052 feet and made an estimated 50,000,000 to 75,000,000 feet of dry gas daily with a pressure of 1,500 pounds. The well passed up two shallower sands in either of which it is believed a good gas well could have been completed. Location of the well is on the Nelson fee tract in I.&G.N. Survey, Section 43.

With such a block and setup there is very little possibility of extensive drilling activity. However, the development is being watched closely by all operators and has focused attention on further possibilities of the county for new production, and there is no doubt there will be considerable wildcatting undertaken in various parts of the county. On a block to the east of the Coyle-Concord block, Danciger Oil & Gas Co. is starting a deep test on the same shoreline trend, which trend sooner or later will be exploited all the way to Conroe.

Wharton County

The wildcat interest in this area still is being shared by Wharton County, which adjoins Colorado County to the south. In Wharton County, five wildcat blocks are being drilled at this time. Smith and associates' No. 1 Mitchell, H.&T.C. Survey 8, and being drilled on a Shell Petroleum Corp. block, is the most watched in view of its depth and showings which have been encountered in shallower sands. This wildcat now is down 6,443 feet and is trying to run a string of 7-inch casing to protect the hole.

Polk County

In the new Schwabb district of southern Polk County, Dick Schwabb and Shell Petroleum Corp. have not given up their No. 2 Davis-Holmes, completion of which as a commercial oil producer has been prevented because of water difficulties. The hole, which has been plugged from a total depth of 4,438 feet to 4,417 feet, will be plugged again to above the casing seat and an effort will be made to mill out and sidetrack the old hole and hunt the sand again. Operators have been working with the well for the past month. The water situation has been materially improved in each test and the well has been flowing some oil by being blown with gas from the discovery gas well but so far has not produced naturally.

Sweet Lake

Pure Oil Co. has just landed and cemented successfully 4,762 feet of 13⅜-inch casing in its No. 11 Yount Lee Oil Co. at Sweet Lake, Cameron Parish, Louisiana. With the exception of a string of 4,872 feet of 13⅜-inch casing cemented by Humble Oil & Refining Co. in its No. 78 Simms Smith, a deep test at Goose Creek, several years ago, the Pure Oil Co. job is the biggest casing setting on record in the Gulf Coast. The pipe was run in a 17½-inch hole and cemented with 300 sacks. A large string of casing has been run as it is the purpose of the company to drill this test to at least 10,000 feet. Sweet Lake is a field of deep production, present production being in 6,000 and 7,000-foot sands.

Victoria County

Gulf Production Co.'s No. 3 Keeran ranch, Martin DeLeon Survey, Victoria County, lower Gulf Coast country, found a new sand at 5,692-5,704 feet and in a three-minute drill stem test showed 360 feet of pipe line oil. The hole is being cored deeper in sand at 5,755 feet. This well is 1,320 feet northwest of No. 1, the discovery well, a wet gasser in sand at 5,191 feet. The second well, No. 2 Keeran, 600 feet east of No. 1, was completed in another sand at 5,851 feet.

Gulf Coast Fields and Wildcats

Week Ending December 31

RACCOON BEND—AUSTIN COUNTY

Company, farm and location—	Remarks:
Humble O. & R. Co.'s No. 4 S. E. Helmuth, Wm. Harvey Sur.	Location.
Humble O. & R. Co.'s No. 8 Payne, Wm. White Sur., 675 ft. from NW line, 150 ft. from SW line	Comp. flowing 750 bbls. P.L. oil, 29/64-in. choke, 3,614 ft.
Humble O. & R. Co.'s No. 9-A Walton, W. C. White Sur., 150 ft. SW of N cor. of 50-ac. tract and 181 ft. SE parallel to NE line	Derrick.
Humble O. & R. Co.'s No. 11 Woodley, Wm. Harvey Sur., 412 ft. out of S cor. of tract	Location.

DAMON MOUND—BRAZORIA COUNTY

Intercoastal Oil Co.'s No. 10 Wisdom, A. Darst Sur., 440 ft. from NW line, 170 ft. from SW line of tract	Sand 3,539 ft; set screen; washing.
A. W. Speed's No. 1 D. F. Bryan, A. Darst Sur., 105 ft. from N line, 65 ft. from W line of lease	S.D. 1,051 ft.
Sinclair Prairie Oil Co.'s No. 2 Mock (W.O.), A. Durst Sur.	Drlg. 3,420 ft.
H. Wisdom's No. 1 Wisdom, 50 ft. from SE line, 75 ft. from SW line of Blk. 5, Lot A, A. Darst Sur.	Drlg. 1,312 ft.

MANVEL—BRAZORIA COUNTY

Alpha Oil Co.'s No. 1 W. H. Nichols, H. M. Little Sur., 200 ft. W, 200 ft. N of SE cor. of tract	Gumbo 1,247 ft; cmtd. 12¼-in. csg.
R. A. Gamble et al's No. 1 Sherwood, Lot 18, Allison-Richey Subd., H. N. Little Sur.	Location.
The Texas Co.'s No. 4 Belcher, Harvey Little Sur., 2,960 ft. S, 42 deg. W, 400 ft. S, 48 deg. E, out of N cor. of lease	Sand and boulders 2,300 ft., fishing.

WEST COLUMBIA—BRAZORIA COUNTY

The Texas Co.'s No. 6 Abrams (W.O.), Geo. Tennille Sur. Losing returns 2,986 ft.

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GAS FOR INTERNAL COMBUSTION

Recent experiments in Birmingham, England, with the object of applying the city's gas to high-speed internal combustion engines have been successful, according to press reports. At present the value of the new system is limited to heavy vehicles. The fitting of the gas cylinders presents a problem, especially in low-hanging double-deck buses, and any developments of gas for general transport would require a chain of compressing stations.

Weld County, Colorado, Well Is Discouraging, But Two More Tests Will Be Scheduled

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Dec. 31.—Two completions and one new location were reported in the Hobbs Pool. Shell Petroleum Corp.'s No. 3-A McKinley gauged 15,357 bbls. and Humble Oil & Refinnig Co.'s No. 2-B Bowers made 8,808 bbls. on a company gauge. The Texas Company is preparing to pipe gas from the Hobbs Pool to its wells in the Lea Pool to flow them. R. C. Oswell's No. 3, in San Juan County, is flowing 30 bbls. per day.

Ramsey Petroleum Co.'s No. 1 St. Anthony, in Weld County, northeastern Colorado, is flowing 400 bbls. of water per day and very little oil after being deepened 6 additional feet into the sand. Regardless of outcome of this well, two more tests are definitely scheduled for an early date.

In Wyoming, the only completion reported was in the Osage Field where Chadron-Osage Oil Co.'s No. 19 came in Christmas morning and flowed 100 bbls. overnight.

In Montana active wells were all confined to the Cut Bank and Dry Creek Fields. No completions were reported, but several Cut Bank wells are near the objective. There were no new locations.

In Washington, Ohio Oil Co., after plugging back, is preparing to test a gas sand in its Aberdeen wildcat.

NEW MEXICO

Lea County

One completion and one new location were reported in the Hobbs Pool. Shell Petroleum Corp.'s No. 3-A McKinley, SE cor. Section 19-18-38, an inside well, was completed at a total depth of 4,206 feet with the 3-inch tubing at 4,202 feet. It gauged 15,357 bbls. of oil and 8,309,000 feet of gas through the casing and 6,642 bbls. and 4,552,000 feet through the tubing. It topped the white lime at 4,121 feet and the pay at 4,163 feet.

A new location, which is digging cellar, is Humble Oil & Refining Co.'s No. 3-B Bowers, SW SE SE Section 20-18-38. It is an outside well in the northeastern part of the field, one location east of the nearest producer.

Getty Oil Co.'s No. 5 McKinley, NE cor. Section 30-18-38, reported a completion last week at a total depth of 4,220 feet, has not been gauged for proration, but is estimated at 15,000 bbls. per day.

Tidal Oil Co.'s No. 4 Hardin, SW NE NE Section 19-18-38, spudded on December 19, and is running 12½-inch at 232 feet in the red beds. Continental Oil Co.'s No. 7-B State, C SW NE Section 33-18-38, is bottomed at 3,210 feet and will make a 24-hour test of the Bowers sand. It had gas at 2,797-2,820 feet and an increase with a show of oil at 3,161-3,206 feet. Stanolind Oil & Gas Co.'s No. 26 Turner, C SE SW Section 34-18-38, topped anhydrite at 1,606 feet and cemented 10¾-inch at 1,622 feet with 75 sacks. Same company's No. 11 State, C NE SE Section 4-19-38, is drilling at 3,635 feet in anhydrite, and its No. 26 Thorpe, C SE NW Section 10-19-38, is drilling at 2,164 feet in anyhdrite and sand. Last named topped anhydrite at 1,570 feet and salt at 1,770 feet. Humble Oil & Refining Co.'s No. 2-B Bowers, SW NW SE Section 20-18-38, is a completion, but has not yet been gauged for proration. On a company gauge it made 8,808 bbls. of oil and 8,000,000 feet of gas per day. Gypsy Oil Co.'s No. 2 Hardin, SW SE SE Section 18-18-38, is drilling at 2,725 feet in salt and anhydrite.

In the Lovington area, Western Drilling Co.'s No. 1 State, NE cor. SE Section 13-17-36, which reached its contract depth last week at 5,016 feet, is shut down.

In the Lea area, The Texas Company's No. 1-B Lynch, C SW NW Section 34-20-34, is drilling at 2,455 feet, and its No. 2-A Lynch, C SE SE Section 34-20-34, is drilling at 1,896 feet. This company has completed surveys for a 24-mile gas line from the Hobbs Pool to the Lea Pool and has called in contractors for bids on hauling and distributing the pipe. The company is the principal producer in the Lea Pool and the line is to convey gas to the field to flow the wells which are now on the pump.

In the Jal area, Continental Oil Co.'s No. 1-B Sholes, C SW NW Section 13-25-36, is drilling at 2,170 feet in sand.

De Baca County

Landowners Oil Co.'s No. 1 State, SW cor. NE Section 16-1s-27, Buffalo Creek, is shut down at 5,315 feet in lime.

Eddy County

Malco Refineries, Inc., posted crude prices of 45 cents for Artesia and 40 cents for Maljamar and Jackson crude, effective December 15. This is 5 cents per barrel under the contract prices announced by Continental Oil Co. on the same date.

Price & Son's No. 1 State, C NE SW Section 15-16-23, has material on the ground, but operations are suspended temporarily on account of the weather. Isaac Hanan and others' No. 1 State, NW cor. Section 32-18-31, is rigging up cable tools. In the Artesia district, Pecos Valley Gas Co.'s No. 7 Vandagriff, SE NW SE Section 5-17-28, is pulling 8¼-inch, which was set at 552 feet, to straightream and rerun to 576 feet. There was an increase in water at 569 feet. Flynn, Welch & Yates' No. 65 State, NE SE SE Section 30-18-28, is drilling at 875 feet in the red beds.

Chaves County

Warman Oil Trust's No. 1 Weldon & Hoar, NW cor. SE Section 9-14-25, Blackdom district, is drilling at 330 feet in red shale.

San Juan County

R. C. Oswell's No. 3, SE NE NE Section 33-30-11w, 4 miles south of Aztec, is reported making heads at intervals of

(Continued on Next Page)

Considerable Oil in Hole in Keho Lake Well; Is Now Cleaning Out Preparing to Swab

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Dec. 31.—On the Keho Lake structure northwest of Lethbridge, Hudson's Bay Oil & Gas Co.'s No. 1 Keho, LSD 2, Section 17-11-22w4, is reported cleaning out and preparing to test after a shot in the main oil sand of the Benton horizon around 3,770 feet. The well had two shows in the Benton, one at 3,680 feet and the other between 3.760 and 3,770 feet, the oil being a 32.6 Be. crude, with indications of possible commercial production. When a test of the deeper show in the top of the Madison lime failed to develop satisfactory production the 6-inch and 8-inch casings were pulled for a test of the Benton horizons. After the shot the hole bridged back to about 3,720 feet. The test was shut down for the holidays, but has since been cleaning out and preparing to swab, with considerable oil reported in the hole.

Farther south and east, Nordon-Roney's No. 2 Twin River, LSD 11, Section 2-2-20w4, on the Twin River structure, southeast of Lethbridge, was shut down for the holidays after cementing surface casing at 261 feet. The test has been handicapped by bad road conditions in the border area, while as many as five of the drillers have been down with the flu at one time. Work will resume early in January.

Frontier Well Gets Show

In northern Alberta, east of Edmonton, Frontier Development Co.'s No. 1 Two Hills, LSD 2, Section 1-55-13w4, got an oil sand at 1,887 feet. The 8⅝-inch pipe was cemented on top of the sand and at last reports the crew was drilling out cement preparatory to testing production. The Two Hills well is reported to have shown better saturation than the Alberta Pacific-Frontier's earlier test on the Duvernay structure in LSD 5, Section 34-55-12w4, some distance further east.

Turner Valley Gas Show

In the Mercury area, South Turner Valley, Associated Royalties' No. 1, LSD 9, Section 5-19-2w5, is rpeorted drilling below 3,295 feet with a wet gas production around 3,000,000 feet a day. Gas production was first encountered in a sand below the Stockmen sand at 3,175 feet, and has been steadily increasing. The test got the Blairmore around 2,900 feet and has been logging about 400 feet higher than adjacent producers. The test was started originally by Sprays Oils, Ltd., and was later taken over by the Associated Royalties interests.

New Tests Starting

Early in the new year will see a couple of new tests under way in the far south end. In LSD 15, Section 28-18-2w5, W. Fay Becker and associates of Calgary have their No. 2 Anaconda rigged up ready to spud in for a test of the Dalhousie sand. Location is 1,500 feet west of Merland Oil Co.'s No. 1, which got a good wet gas flow with crude naphtha recovery in the Dalhousie horizon before drilling to the deep lime.

Doherty, Roadhouse & Co. of Toronto have secured control of LSD 16, midway between the Anaconda location and Merland's No. 1, by purchase of a controlling interest in Director Oils, Ltd., of Vancouver from Newton J. Ker, Alan Ker and H. D. Layfield of that city. The Toronto firm is headed by Manning Doherty, former minister of agriculture for Ontario, and Thomas Roadhouse of Toronto, both active in the management of the Merland Oil Co. before Calgary interests secured control at the last annual meeting. Director Oils, Ltd., holds about 1,000 acres of leases in Alberta, including LSD 16, Section 28-18-2w5. It is understood that the Doherty-Roadhouse interests will start a test on the latter location early in the spring. About a mile farther south, Union Drilling Co.'s No. 1, LSD 8, Section 21-18-2w5, will spud early in January if weather is favorable. Mar-Jon-Freehold's No. 1, LSD 9, Section 28-18-2w5, is shut down for the holidays after cementing around 5,350 feet in connection with a difficult sidetracking job.

Central Turner Valley

In the Central Turner Valley area, Bow Oils' No. 1 Illinois-Alberta, LSD 14, Section 12-20-3w5, is cleaned out to within 20 feet of the old bottom in the lime, and shows considerable increase in wet gas production. Fishing for the old bit is being started.

McLeod Oil Co.'s No. 4, LSD 16, Section 1-20-3w5, is at 7,760 feet and testing production from a number of deep horizons below the lime.

North Turner Valley

In North Turner Valley, Model Oils' No. 2, LSD 16, Section 22-20-3w5, is fishing for lost tools around 3,907 feet.

Tests in the Foothills

On the Monarch structure, west of Olds, Cartier-Majestic's No. 1, LSD 3, Section 36-31-7w5, is at 1,460 feet and fishing for a lost bit.

On the Moose Dome structure, northwest of Turner Valley, Herron Cartage Co.'s No. 1 Moose Oils, LSD 16, Section 29-22-6w5, is cleaning out preparatory to making new hole from 2,825 feet. At this depth the test is well into the Devonian lime, and there is considerable gas. The well is being completed by W. S. Herron and associates under arrangement with R. W., Loran and Orval Pilling, who started the original development. The Timmins mining interests of Toronto, which handled the later drilling on No. 1 Moose Oils, have withdrawn. The test had gas shows at 11 different

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horizons, three in the Madison and the remainder in the Devonian lime which was entered at 550 feet. At present the gas flow is reported at 3,000,000 feet a day. The production is largely wet gas, with a reputed potential naphtha recovery of 1 gallon to 1,000 feet of gas. At 2,413 feet there was a porous horizon in the Devonian with a good show of 45 Be. crude. This was cased off and drilling continued for larger production. The 8-inch casing was set at 2,600 feet and drilling continued to 2,835 feet where a heavy gas flow was struck, when the tools were lost in the hole. It is possible that the casing may be pulled and the light crude show at 2,413 feet given a test.

Drilling in Ontario

In Kent County, Ontario, F. H. Stover & Son's No. 1, Earl Flook farm, Lot 19, Concession 8, Raleigh Township, failed to maintain its initial production of around 50 bbls. or better. The well is being deepened from 1,638 feet. It was only a few feet in the sand. In the Olga Oil & Gas Co. wells, farther east, gas was encountered in a series of small pays extending for nearly 100 feet, and it is hoped deepening of Stover's No. 1 will encounter similar additional oil. The crude is stated to be between 48 and 50 gravity, an exceptionally high grade product for Ontario, and entirely free from sulphur.

West of the discovery well, F. H. Stover & Son are drilling Producer Gas Corp.'s No. 1, on the Cecil Chinnick farm, Lot 17, Concession 8, Raleigh Township. This test is down about 300 feet and ready to case.

In southeastern Kent County, Vacuum Gas & Oil Co.'s No. 4, Lot 53, North Talbot Road, Oxford Township, is reported drilling around 1,400 feet after setting casing at 1,125 feet. It is expected to get the first of the potential horizons within a week; but may be continued as a deep test of the Trenton formation.

In the Tillsonburg area, Norfolk County, Ontario Gas & Oil Co.'s No. 1 is drilling for gas, discovered in several wells in this area.

In Dawn Township, Lambton County, Union Gas Co.'s No. 65, Lot 24, Concession 2, is reported drilling below 1,175 feet.

Petrolia Field

In the Petrolia Field, Lambton County, Ontario, experiments in the chemical treatment of old producing wells are being continued by Dowell, Inc., of Midland, Mich. James Welsh and E. A. Ward, representing the company, are handling the work. At last reports treatment had been applied in 12 producing wells, but difficulties were being experienced owing to the prevalent use of hemp packets, and other producing conditions which made it difficult to apply the requisite pressure. In 11 wells no noticeable results were reported, but in the remaining well a production of one-half barrel a day was increased to 10 bbls. of fluid. The production was, however, refused by the refining company as not conforming to its requirements. Later the production dropped to a steady 2 bbls. a day which was found of satisfactory quality.

Additional experts are being brought from Michigan and adjustments are being made to the treatment and equipment which will, it is expected, produce more satisfactory results. The company's program involves the treatment of upwards of 1,000 old producing wells, most of the individual producers being of a few gallons capacity per day.

Athabaska Test

In the Athabaska district, northern Alberta, Athadome Oils' No. 2, LSD 3, Section 15-66-23w4, is reported shut down for the winter after drilling to more than 700 feet.

Cut Bank Operations

On the Montana side of the boundary, Alberta Pacific Consolidated Oils, Ltd., of Calgary has one test, No. 1 Matson, NE NW Section 14-34-6w, drilling below 2,140 feet. This test should reach the producing horizon early in January. Alberta Pacific's No. 1 Kiesel, Section 11-34-6w, is drilling below 1,250 feet.

Rocky Mountain

(Continued from Preceding Page)

seven minutes and flowing 30 bbls. per days from sand at 1,422-42 feet and sand topped at 1,340 feet.

WYOMING

Carbon County

The Mutual Oil Syndicate (S. H. Keoughan and others) has finished its immediate drilling program on the Dutton Creek structure with the completion of its third gas well. This brings the number of wells producing gas, including one recently completed by Ohio Oil Co. to six. A conference between officials of Ohio Oil Co., Illinois Pipe Line Co., Rocky Mountain Gas Co. and Laramie Gas Co. was held in Laramie to discuss the plans for the piping of gas from Dutton Creek to Laramie, where it will be distributed by the Laramie Gas Co. The Illinois Pipe Line Co. has an obsolete oil carrier between the field and Laramie which it is planned to convert into a gas line. Two short connections will have to be built. Rocky Mountain Gas Co., an Ohio subsidiary, probably will be the transporting company. The entire cost, including new construction and converting the Laramie distributing system will be in the neighborhood of $750,000.

Ohio Oil Co.'s No. 1 Kanawha, SW NW NE Section 34-23-79, Allen Lake, cemented 8¼-inch at 293 feet and is waiting. Lost Soldier Producing Co.'s No. 1, NE NE Section 25-26-88, Mahoney Dome, recovered lost bit at 4,030 feet and resumed. Sidetracked junk fell back into the hole and operations were suspended until spring.

Fremont County

The Texas Company's No. 2 State-Ridgway, SE SW SW Section 36-34-95, Alkali Butte, is bottomed at 4,441 feet and running corebarrel. It is through the Muddy and the Dakota is the next objective. Ward Oil & Gas Co.'s No. 2, NE cor. Section 28-34-90, Dutton Basin, shut down for the winter at 4,300 feet after cementing the 8¼-inch.

Park County

Continental Oil Co.'s No. 1 Northern Pacific, SE SW NE Section 23-58-98, Frannie Dome, is drilling at 2,910 feet. The first objective is expected at around 3,600 feet.

Converse County

Continental Oil Co.'s No. 30 Glenrock Sheep, SW SE SE Section 4-33-76, Big Muddy, a test of the Sundance formation, is bottomed at 4,755 feet and standing after cementing cavey ground.

Weston County

Chadron-Osage Oil Co.'s No. 19, SW cor. SE Section 14-46-64, the only active operation in the Osage Field, was completed at 10 o'clock a.m., Christmas Day. It topped the sand at 1,770 feet and flowed 100 bbls. into storage by the next morning. General Oil Co. has moved rig from its No. 1, SW cor. NW Section 15-46-64, where hole was lost, to the NE cor. Section 22-46-64.

Crook County

St. Onge Oil & Gas Co.'s No. 1, SW NE SE Section 20-53-61, Redwater district, is drilling at 900 feet.

COLORADO

The only news of importance from Colorado wells this week is rather discouraging. Ramsey Petroleum Co.'s No. 1 St. Anthony, SW NE SE Section 15-7n-59, in the New Raymer-Buckingham district in northeastern Colorado, completed rigging up cable tools and went back into the hole with a 5-inch bit. It was bottomed about 2 feet in a sand and believed to be the Dakota and was flowing an average of 60 bbls. of oil and 80 bbls. of water with around 4,000,000 feet of gas from an upper sand through perfor-

ated casing. The hole was deepened a foot to 6,763 feet and for several days was permitted to flow. The water increased to an average of 200 bbls. per day and the quantity of oil decreased. Yesterday it was again deepened 5 feet, increasing the water to 400 bbls. per day. It is planned to continue drilling ahead slowly and probably will go to the Lakota. The question again has been raised as to whether the sand is the Dakota and further drilling is expected to determine that matter beyond doubt. In the meantime the tendency is to wait for more definite results before reaching any conclusions. It is certain regardless of the outcome of this well at least two more important tests will be drilled in that area the coming year. The companies preparing to make these tests are not ready to give publicity to their plans. All other operations in that district are at a standstill.

In Larimer County, Richard Branstad and others' No. 1 Branstad, C S half SE Section 11-11n-69, Round Butte, is rigged, but has not yet spudded.

In Jackson County, a Denver syndicate's No. 1 Mosman, SW Section 33-9n-78, South McCallum Dome, is bottomed at 90 feet and waiting for 15½-inch casing. It is a mile west of Continental Oil Co.'s No. 1 Hoye.

In Arapahoe County, MacDeb Drilling Co.'s No. 1 Fitzsimmons, NE Section 7-4s-66, had a hold on the 4¾-inch casing which had dropped to the bottom and it was coming out when it again parted 1,500 feet from the top. Consideration is being given to the installation of rotary equipment and starting a new hole, but nothing definite has been decided.

MONTANA

Carbon County

Ohio Oil Co.'s No. 11 Bowman, C SE NE Section 4-7s-21, in the Dry Creek Field, has not yet been able to make a production test. It has succeeded in plugging off bottom water in the Lakota and setting pipe on top of the sand. The casing is perforated through the Dakota and both sands will be produced. Bailing to test is in progress. Total depth is 5,928 feet after cementing back. Same company's No. 9 Souders, C NE SW Section 2-7s-21, is drilling at 4,170 feet. This well will complete the winter's campaign and two locations announced two weeks ago will not be drilled until spring.

Carbon Oil & Gas Co.'s No. 1 McMinn, NW SW SW Section 7-7s-22, on the southeastern edge of the field, shut down for orders at 5,551 feet after testing a second bench of the Dakota encountered at that depth.

Glacier County

There were no completions or new locations in the Cut Bank Field, but several wells are drilling close to the objective. R. C. Tarrant's No. 1 Britton, NE cor. SE Section 14-34-6w, a west offset to his No. 1 Haglund, a producer which made 85 bbls. per day initially, went through the sand producing in the offset at 2,866-96 feet and shut down at 2,916 feet until after the holidays. There was very little oil in the sand. Tarrant's No. 1 Haglund, Sr., NW SW NW Section 13-34-6w, is bottomed at 2,836 feet and preparing to run the 5-7/16-inch. It will be an early completion. His No. 1 McLellan, C SE SW Section 7-34-5w, is standardizing at 1,465 feet, and his No. 1 Miller, C NE NE Section 24-34-6w, is shut down at 1,250 feet and probably will await completion of No. 1 Britton.

B. E. Adams and others' No. 1 Britton, SE cor. NE Section 14-34-6w, is bottomed at 2,730 feet and is still trying to recover lost tools. A hold on the tools was secured but it has been impossible to move them so far. Alberta Pacific Consolidated Oil Co.'s No. 1 Matson, NE SE NW Section 14-34-6w, is fishing at 2,217 feet in the Colorado shale, and its No. 1 Kiesel, NE cor. NW Section 11-34-6w, is drilling at 1,735 feet in the Colorado shale. Dakota-Montana Oil Co.'s No. 1 Drumheller, SW SE NE Section 3-34-6w, is drilling below 1,000 feet in the Colorado shale, and L. R. Hannah and others' No. 1 Britton, SE SW SE Section 14-34-6w, is drilling in the Kootenai at 2,355 feet. Hannah-Porter Co.'s No. 1 Britton, NW NE NE Section 23-34-6w, spudded and shut down. Santa Rita Oil & Gas Co.'s No. 1 Jackson, C NW SW Section 25-34-6w, has rig completed. This company, which has two producers in the field, is preparing to begin work on an 8-mile 4-inch line from the field to the railroad 3 miles east of Cut Bank.

WASHINGTON

Ohio Oil Co.'s No. 1-A Robinson, Section 5-17-9w, near Aberdeen, has plugged back from 6,725 feet to 4,278 feet and is preparing to test a sand which showed gas on the way down.

Exports and Imports of Refined Oil Products

(Continued from Page 23)

to remain in quiet position until well after the middle of January.

The following table shows exports of principal refined petroleum products reported from the port of New York during the three weeks ended December 24 (all figures in gallons unless otherwise noted):

	Week ended		
	Dec. 24	Dec. 17	Dec. 10
Gasoline	25,000	10,000	230,000
Naphtha	260,000	485,000	6,000
Kerosene	20,000	4,000	65,000
Fuel and gas oil	25,000	198,000	4,000
Lubricating oil	550,000	495,000	1,990,000
Petroleum, ref'd.	220,000	295,000	140,000
	Pounds		
Petrolatum	116,000	11,000	
Paraffin wax	2,860,000	7,235,000	2,110,000
Refined	190,000	245,000	
Scale	580,000	265,000	690,000
Lub. grease	435,000	762,000	418,000

Imports

Imports of crude and refined petroleum at the principal United States ports for the week ended December 24 totaled 642,000 bbls., a daily average of 91,714 bbls., compared with 891,000 bbls., a daily average of 127,286 bbls. for the previous week and a daily average of 114,036 bbls. for the four weeks ended December 24. Details follow:

	Bbls. of 42 gals.
At Atlantic Coast Ports—	
New York	360,000
Philadelphia	217,000
Total	577,000
Daily average	82,429
At Gulf Coast Ports—	
New Orleans	65,000
Daily average	9,285
At all United States Ports—	
Total	642,000
Daily average	91,714
Daily average four weeks	114,036

The week's imports comprised 565,000 bbls. of crude petroleum and 77,000 bbls. of fuel oil.

California Oil Receipts

Receipts of California crude and refined petroleum at Atlantic and Gulf Coast ports for the week ended December 24 totaled 234,000 bbls., a daily average of 33,429 bbls., compared with 222,000 bbls., a daily average of 31,714 bbls., during the previous week, and a daily average of 40,000 bbls. for the four weeks ended December 24. Details follow:

	Bbls. of 42 gals.
At Atlantic Coast Ports—	
New York	117,000
Philadelphia	117,000
Total	234,000
Daily average	33,429

The week's receipts comprised 209,000 bbls. of gasoline and 25,000 bbls. of kerosene.

There were no receipts of California oil at Gulf Coast ports during the week.

At the close of the week the following cargoes were reported afloat from California for the East:

For New York, 95,000 bbls. of furnace oil on the Socony-Vacuum tanker China Arrow.

For Philadelphia, 117,000 bbls. of gasoline on the Sun Oil Co. tanker Southern Sun.

M. H. GOODKIND DIES

Martin H. Goodkind of 1000 Park Avenue, New York City, a retired oil operator, died December 29 after an illness of six weeks.

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President

Taylor Instrument Companies
ROCHESTER, N. Y.

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INDICATING, RECORDING AND CONTROLLING INSTRUMENTS

Eleven Completions in Central Ohio, One Oil; Average Wells Completed in Kentucky

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Dec. 31.—In the old Lima Field of northwestern Ohio only three completions were reported. Sandusky County reports a 15-bbl. initial producer drilled by W. G. Montgomery and others on the Noah Hetrick farm, Section 30, in Rice Township. This test may bring some additional work in that part of the old field, being near Fremont.

C. Wintzer drilled a test on his own farm, in Section 28, Douchouqett Township, Auglaize County, and found a dry hole. N. E. Masters and others are drilling a second test on the George Rable farm, Section 11, Noble Township, same county.

In the Tiffin Field, in Hopewell Township, Seneca County, the Tiffin Industrial Gas Co.'s No. 3 on the Frank Feasel farm, Section 2, is a light gas well. Sandusky Gas Co. is drilling on the Clement B. Conrad farm, Section 3, same township, and Miller and others have a rig on the L. D. Kreeger farm, Section 10, same township.

In Hancock County the Ohio Oil Co. abandoned Nos. 7 and 17 on the Ephram Trour heirs farm, in Allen Township, and Porter & Bittsford are drilling No. 20 on the David Miller farm, Section 1, Eagle Township, same county.

Limestone Ridge Oil & Gas Co. has abandoned No. 1 on the William Apple farm, Section 24, Pitt Township, Wyandot County. McPharon and others are moving in a drilling outfit on the Carl Smith farm, Section 33, Crane Township, same county.

Ackerman and others are drilling around 600 feet on the Barley Waggoner farm, Section 31, Sandusky Township, Sandusky County.

CENTRAL OHIO

Eleven completions were reported from the Central Ohio Field, one an oil well that produced but 1 bbl. initial and 10 are gas wells. In Belmont County, W. S. Fulton and others struck a small gas well in No. 5 on the N. E. Slevin farm, Section 27, Somerset Township, in the Berea sand at a total depth of 1,957 feet. In Union Township, same county, the O. K. Oil & Gas Co. drilled in No. 1 on the Brown farm, Sections 23 and 24, also drilled in No. 2 same farm, which is a gas well. Same company drilled in a gas well on the Adams farm, Section 29, same township, at a depth of 1,085 feet.

In Licking County the Blue Rock Oil Co. has a light gas well on the Allen Wilson farm, Section 12, Mary Ann Township, at a total depth of 613 feet.

Union Gasoline & Oil Corp. drilled in a gas well in No. 2 on the Steve Jeronic farm and another gas well in No. 1 on the Fred Kurth farm, Section 25, Richland Township, Belmont County.

Kachelmacker estate brought in a fair gas well on the Dwyer farm, in Vinton County. Ohio Fuel Gas Co. drilled in a gas well in No. 4 on the H. W. Stockert farm, Section 15, Jackson Township, Stark County.

H. O. and C. O. Young are drilling in No. 1 on the L. Hewitt farm, Section 23, Waterloo Township, Athens County, at 1,120 feet. In York Township, same county, Smith & White are drilling a second test on the M. Roach farm, Section 7, York Township.

George E. Jewell and others are drilling on the L. B. Loaden farm, in the northeast corner of Section 1, Hanover Township, and Alcoma Oil & Gas Co. is drilling on the Levi Simmond farm, in West Township, same county.

The O. K. Oil & Gas Co. is drilling No. 9 on the Celectia Richards farm, in Lot 1, Chatham Township, Medina County. F. E. Barnhart ant others are drilling No. 5 on the W. P. White farm, Lot 17, Harrisville Township, and Hulse and others made a location for No. 8 on the Desnoyes Realty Co. land, Lot 78, Medina Township, same county.

KENTUCKY

In Ohio County, in the Friendship Pool, D. T. Bolling and others' No. 4 on the Frank Hanna Smith farm, is reported with an initial of 40 bbls. D. J. White and others' No. 7 on the Ernest Bickett 90-acre farm, in the Haynsville Pool, showed an initial around 45 bbls. Ivyton Oil & Gas Co.'s No. 14 on the R. A. Miller 275 acres, in the same pool, is rated good for 30 bbls. B.&B. Oil Co.'s No. 9 on the James Greer farm, in the Whittaker Pool, produced 15 bbls. initial.

In Daviess County, Ellis and Ashby drilled in a 25-bbl. producer in No. 4 on the Ramsey heirs farm, 1 mile northwest of Whitesville.

In McLean County Witmer Oil & Gas Co.'s No. 1 on the J. L. Boyken farm, 2 miles east of Livermore, is a gas well with 500,000 feet. Same company is drilling No. 1 on the B. L. Stevens farm, same area.

In Henderson County, Niagara Field, Turner and others' No. 1 on the Chester Duncan farm, and No. 1 on the Mrs. Mollie Duncan farm, were reported fair gas producers.

The Ohio Oil Co. is drilling on the Frank Looke farm in Muhlenberg County.

INDIANA

While a large number of wells are drilling in various parts of Indiana they are slow in bringing them in. In Pike County A. E. Davis drilled in a test in the southeast corner of the Frank Aurand farm, SW Section 20, Washington Township, at from 1,090 to 1,100 feet, reported showing for 750,000 feet. Claud Trassler, Moore and others' test in the southwest corner of the Charles Lucas farm, SW Section 17, same township, is credited with 1,700,000 feet from 1,029-43 feet. Same parties are drilling on the Earl Reed farm, Section 1, same township. Vern Burden is drilling No. 2 on the W. Smith farm, Section 17, and H. H. Risher is drilling No. 1 on the L. Boyer farm, also in Section 17, same township.

Dr. Charles C. Taliaferro, Jr., drilled in a dry hole in the northeast corner of the B. F. Rynerson farm, Section 31, Prairie Creek Township, Vigo County, and is drilling No. 1 on the Cyrus L. Lane farm, same township.

Davis & Basinger are drilling on the John W. Esarey farm, NW Section 3, Anderson Township, Perry County. Dr. C. C. Taliaferro, Jr., is drilling around 500 feet on the Cora Nixon farm, NW Section 11, Clark Township, same county.

A. R. Morris and others drilled a dry hole on the H. B. Brown farm, Section 9, Washington Township, Greene County, near the town of Lyons, at 1,600 feet.

Eastern Allowable Production Yet 70 Per Cent; Six Gas Wells and Two Oil Completions

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Jan. 2.—For the month of January allowable production in the three districts of the lower eastern fields will continue at 70 per cent, according to a recent announcement of the South Penn Oil Co. This affects producers in Southwest Pennsylvania connected to the South West Pennsylvania Pipe Lines, in West Virginia connected to the Eureka Pipe Line Co., and in Southeast Ohio connected to the Buckeye Pipe Line Co. and with whom contracts exist for all oil as run.

In the upper country, the Bradford, Pa., districts, and the Allegany, N. Y., districts, allowable production continues at the same rate as last month or 75 per cent of the base. Production in these districts is being kept down to about 30,000 bbls. a day.

In the intervening districts, the National Transit Co., north of the Southwest Pennsylvania fields to the Bradford districts, no curtailment is in effect over that entire district as refineries contract for their needs in the several zones set up and no one purchasing agency buys the greater part of the production as in the lower fields, where the South Penn Oil Co. buys the greater part and can state its requirements.

Independent buyers of crude in the East, including some pipe lines not operating as common carriers, have found it expedient also to place a limit on the amount of oil purchased and have announced that oil run in their lines in excess of the amount requested will be received for storage and only the amount desired will be paid for.

As is customary, the holidays interfered with the number of completions as a number of wells shut down during that period. Yet six gas wells and two producers with an initial production of only 12 bbls. were completed. One test failed of either oil or gas.

SOUTHEAST OHIO

But one well was completed in Southeast Ohio during the week and that was a fair gas well. In the northeast corner of Section 20, Perry Township, Muskingum County, the Wittmer Oil & Gas Properties completed a second test on the Sidney Taylor farm. It was drilled in the Clinton sand at a depth of 4,275 feet and gauged about 500,000 feet a day initial after shot.

No appreciable change is noted in the status of the deep test of Benedum & Trees and others on the E. E. Knowlton farm in Section 10, Independence Township, Washington County. It is making slow progress down to the Clinton sand estimated at a depth of about 7,100 feet. Several hundred feet are yet to be drilled. In this county several wells are still to be heard from. In Fearing Township T. C. Robison Brothers are drilling on the William Templeton farm. In Newport Township C. L. Benedict has No. 6 drilling on the John W. Mendenhall farm. In Liberty Township, C. A. Frantz and others have a second test drilling on the J. W. Taylor farm, Section 9.

In Union Township, Belmont County, Bradfield and Hardwick are ready for a second test on the John Shutway farm, Section 35, and in the center of the new gas pool. In Section 29, the O. K. Oil & Gas Co. is about due in with its second test on the Alice Adams farm. The wells in this pool have so far all been good for 1,000,000 feet a day.

WEST VIRGINIA

One producer making a fair showing was completed in West Virginia. It was the Parks Farm Oil Co.'s No. 3 on the P. C. Parks farm on King Knob Ridge along Indian Creek in Murphy district, Ritchie County. It was drilled in the Maxon sand at a depth of 1,873 feet and is producing about 10 bbls. a day natural. The well will probably be shot.

In Boone County C. P. Jones and others completed a second test on the J. W. McKinney farm in Scott district. While not as large as No. 1 it is still a fair well showing for about 500,000 feet a day from a depth of about 2,083 feet.

In Calhoun County the Chemical Oil Co. completed a second test on the Fling and Elder lease in Sheridan district in the Injun sand at a depth of 2,495 feet. It will make a gas well in the neighborhood of 300,000 feet a day.

In Lincoln County the Harvard Gas Co. completed No. 3 on the Standard Fuel Gas Co.'s tract in Washington district. It is a Beren sand well showing for about 300,000 feet a day. In Monongalia County the South Penn Oil Co. has a fair gas well in its No. 4 on the A. B. Price farm in Clay district on the waters of Dunkard Creek. It was completed in the Bayard sand at a depth of 2,900 feet.

Ritchie County had a second completion. It was the second test of the Reno Oil Co. on the L. F. Overton farm on the waters of McFarlan Creek in Murphy district. It is a Big Injun sand well good for 500,000 feet a day. In Wetzel County, Earl Hennen and others drilled a test on the Joseph Stender farm in Magnolia district to a depth of 3,270 feet the Fifth sand. It proved dry with a showing of gas estimated at 20,000 feet at a depth of 2,852 feet. It will be abandoned.

Drilling in West Virginia

In Ritchie County A. H. Jackson and others have started drilling on the J. W. Heffer farm in Murphy district. In the same district Warner Britton and others are rigging up to drill deeper in their No. 1 on the United Brethren Church

lot. B. C. Deem is down 1,567 feet in No. 3 on the William McFadden farm, Murphy district.

In Pleasants County the Eureka Oil Co. has started drilling on the G. R. Hammett farm in Grant district. In Union district, the Engle Run Oil Co. has shut down at 550 feet in No. 28 on the Allen Holdren farm. In Grant district M. C. Martin, Jr., is drilling No. 24 on the M. C. Nye farm.

In Tyler County Albert Neeley has reached 1,300 feet on the M. E. Smith farm, Meade district. In Centerville district, Haymond and McCullough are drilling No. 5 on the D. L. McCullough farm and have reached 1,000 feet. In Meade district, the Ohio Oil Co. is drilling on the Charles Robinson farm. In Upshur County, the test of W. P. Bickel on the Charles Moss farm in Meade district is down 2,550 feet.

In Calhoun County, among the new work, H. B. Scott has made a location on the Board of Education plot in Sherman district. In this district, Creed Barker and others are fishing at 1,775 feet on the Lloyd Kelly farm, and McCall and others are drilling at 500 feet on the William Poling farm. Creed Barker and others have the materials on the Bert Fowler farm. In Sheridan district, Ira Haught and others are building a rig for a second test on the Alva Elder farm. L. B. Carroll has a rig standing on the Pell Shank farm. Roy Waggoner and others are down 1,600 feet in a second test on the Clay Chenowith farm. In Lee district, F. F. McIntosh has started drilling on the S. A. Hays farm and is down 300 feet. In Washington district, C. B. Lewis has his test on the Louie Hamilton farm past the 1,200-foot level.

In Gilmer County the McCall Drilling Co. has completed a rig for No. 7 on the Fletcher H. Stout farm in Center district. In DeKalb district, Poling and McDonald have a fishing job at 800 feet on the Miles Snyder farm. James A. Tierney has reached 2,050 feet and is shut down testing his No. 2 on the F. G. Hardman farm which was drilled down to the Injun.

In Lincoln County, the Bulger Gas Co. has made fair progress on the Samuel Van Gundy farm in Jefferson district and is down 2,000 feet. In Boone County the Cambridge Gas Co. is on top of the sand on the C. C. Lewis heirs farm, in Scott district, and is running casing.

In Logan County Roberts and Jarrett are drilling on the Hubert Ferrall farm in Chapmansville district. In the same district the Cumberland Petroleum Co. has reached 1,442 feet in No. 8 on the Merrill Creek Coal Co.

SOUTHWEST PENNSYLVANIA

One small well was completed in Southwest Pennsylvania, that of Oliver Miller & Co. on the John Cable heirs farm in McCandless Township, Allegheny County. It was completed in the Third sand at a depth of 1,900 feet and is showing for a small pumper of about 2 bbls. a day initial.

In Harmar Township, Allegheny County, M. C. Rodgers and others are drilling a second test on the Grace W. Wolf farm and have reached 1,750 feet. In Findlay Township, E. L. Oles is down 1,650 feet on the James Coventry farm.

In Green County Johnson and Eddy shut down at 2,150 feet in a second test on the Frank Roberts farm in Gilmore Township on account of repairs to the engine.

Three Completions in Michigan District, But All Were Ordinary Producers

By GEORGE A. WHITNEY

MOUNT PLEASANT, Mich., Dec. 31. Only three completions were reported from the Michigan fields for the week and they were only ordinary producers. Isaac Shuler, trustee, drilled in No. 2, 330 feet from the north line and 1,653 feet from the east line of the E. Remenschnider farm, in the NE SW NE Section 14, Greendale Township, Midland County, which produced an initial of 100 bbls.

Pure Oil Co.'s No. 3-A, 330 feet from the north and west lines of the Laura E. Root farm, in the N half SE Section 18, Greendale Township, Midland County, came in with an initial of 15 bbls. Same company is drilling No. 2, 990 feet from the north line and 330 feet from the west line of the Mary Jacobs farm, in the N half SE S half NE Section 9, same township; also No. 2, 330 feet from the north and west lines of the P. Remenschnider farm, Section 15, same township, 2,310 feet from the north line and the same distance from the east line of the Corwin A. Fergus farm, in the NE Section 21, and W half NW Section 22, same township.

Talbot Oil Co. is drilling No. 1 in the Toper Talbot farm, in the SE SE SW Section 11, Greendale Township, No. 3-B, 330 feet from the south line and 990 feet from the west line of the State of Michigan land in the SE SW SE Section 11, and No. 4-B, 330 feet from the south line and 990 feet from the east line of the State land, in the SW SE SE Section 11, same township.

Thompson Brothers are drilling No. 2-A, 990 feet from the south and west lines of the Earnest Remenschnider farm, in the N half SW NE Section 14, Greendale Township. R. D. Malcolm made a location for No. 3, 330 feet from the south line and 990 feet from the east line of the Vernon G. Hastings farm, in the NE NW Section 13, Greendale Township. Geneva Oil Co. made a location for No. 1, 990 feet from the south and west lines of the George Hanners farm, in the NE SW SE Section 15, Greendale Township. Burks White and others made a location for No. 5 on the Opperman farm, Section 12, same township.

In Saginaw County, the Smith Petroleum Co.'s test, 330 feet from the south line and 990 feet from the west line of the Richard Jones and others' farm, in the W half SW Section 21, Birch Run Township, is reported good for 10 bbls. from the Berea sand at 1,530 feet. Alvin Weber, trustee, drilled a dry hole 990 feet from the south and west lines of the W. Kirchner farm, in the NE Section 15, Tittawassee Township, same county.

CZECHOSLOVAKIA TO DRILL

The Czechoslovak government is to drill a deep well for oil at Jasina, a depth of 1,500 meters being contemplated if necessary. Equipment arrived at the location in the middle of September, but the rig is not erected. Before the war drilling was done at Jasina to 700 meters. The investigations into the oil possibilities in the neighborhood of Turzovka, undertaken by the State Geological Institute, are now concluded and the mapping is completed. According to the data ascertained the oil deposits are very extensive and drilling need not be deep or expensive. The quality of the oil is good, but it is doubtful whether the oil strata are so productive as to justify commercial development.

GASOLINE TAX NONEFFECTIVE

The increase of 6 cents in the tax on gasoline in New Brunswick appears to have resulted in a loss rather than a gain in revenue, as operators of motor vehicles reduced expenditures for gasoline and a large number stopped using their cars.

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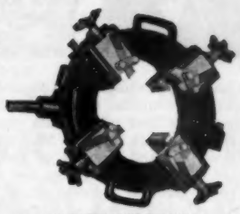

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Hopes of California Operators for Better Times in 1933 Are Based on Stringent Curtailment

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., Dec. 31.—California operators are looking forward to the new year in the hope that the going will be a little smoother than in 1932, but while the rough spots may not be quite as numerous as heretofore, there are still a few hurdles ahead. In order to lay the foundation for a definite improvement during 1933, it will be necessary to maintain effective stringent curtailment and continue efforts to stabilize the price of refined oil. If this can be done during the first three or four months, the outlook for the balance of the year appears promising. This does not mean that it will not be necessary to maintain further curtailment of production, but rather indicates a lessened degree of curtailment and possibly a higher price for crude and refined oil.

Reviewing the past year, one cannot but be impressed by the realization that producers of crude oil more fully appreciate the numerous problems confronting refiners and marketers. A small minority have consistently failed to co-operate, but the vast majority of producers and refiners have earnestly endeavored to work out the problems which have confronted the industry almost continuously during the past several years. Substantial progress was made in curtailment work during 1932, notwithstanding the fact that crude oil production has been considerably in excess of the established allowable during the past several months, and there is an excellent possibility that further progress will be made in 1933. Under normal conditions, this excess production would have resulted in a substantial accumulation of crude and refined oil, but due to abnormally large shipments to the Atlantic Coast and foreign ports, stocks on the Pacific Coast remained relatively unchanged. It might not be amiss to mention in this connection that there was practically no profit made on export shipments during the latter part of 1932. This can be attributed to the competitive condition of the market as far as intercoastal shipments are concerned, and to the depreciated condition of the English pound sterling, the Japanese yen and the French franc. Under normal conditions the export business done by California marketers in 1932 would have proved quite lucrative.

Executives of major companies, while apprehensive over conditions prevailing in the Pacific Northwest where refined oil prices have been drastically reduced to meet competitive gasoline from Texas, are fairly optimistic. They are hoping for the best but have taken precautions against any unexpected relaxation in crude oil curtailment. In the past, major companies have been burdened with crude oil purchase contracts which made it obligatory to buy oil even when it was not needed. This was particularly undesirable, especially in times of stress, as it necessitated an expenditure of cash for what has consistently been unneeded. Major companies, several of which are buying on a day-to-day basis, are now in a position to serve 24 hours' notice on producers and discontinue purchases if a gas war should break out or some other disturbance arise at any time. As a matter of fact, some companies are in an excellent position to combat price cutting by discontinuing all purchases and operate on their own production. If this unfortunate situation should develop it would probably be a long drawn-out affair because of the resulting chaotic condition, as such a condition would result in bankruptcy of many weaker units.

Low Consumption

The situation in California has reached the point where the benefits of aggresive curtailment will soon manifest themselves provided all refiners can go through the next three months of lower consumption without rocking the boat. Some of the advantages gained will be lost, however, if reductions are effected in the price of refined oil, particularly if this condition becomes aggrevated. January and February are usually periods of low consumption, due to some extent to the rainy season, and consequently require careful distribution to prevent price cutting. Developments during the next two months therefore may indicate the future trend during the coming year. If crude oil production and prices of refined oils become stabilized, the foundation will be laid for definitely improved conditions later in the year.

There seems to be a tendency on the part of a number of producers and refiners to become overly optimistic with the advent of the new year and, while there is some basis for this encouraging outlook, caution should be exercised during the next few months. The principal source of satisfaction lies in the fact that most operators are anxious to improve the situation by co-operative curtailment and also because of the absence of new fields in the ascendency in Los Angeles Basin. Long Beach, Santa Fe Springs, Huntington Beach and other Los Angeles Basin fields are all showing a normal decline but it will probably be another several months before their family curve reaches the settled stage. The normal decline curve at Long Beach and Santa Fe Springs is still reflecting spasmodic drilling in the former area and reconditioning work in the latter. Upon the conclusion of this work, or at least a reduction in the amount of work under way, production of the two fields will reflect a normal decline.

Impending Hurdles

The necessity of maintaining effective curtailment and stabilization of refined oil prices during the next three months or so is clearly indicated from an analysis of drilling operations throughout the state. There is one hot spot at the present time and another destined to become rather warm in the not far distant future. Both of these areas are believed to be potentially able to upset the production equilibrium under the impetus of unrestricted development. Fortunately, however, neither area is expected to seriously impair the curtailment program if the situation is handled with diplomacy. The first factor centers around the possibility of deep zone development in the North Belridge Field of Kern County where rtcent developments tend to indicate a productive area larger than anticipated. The possibility of deep drilling in this field has been anticipated but since the acreage is in strong hands it appears probable that deep zone exploitation will be retarded until a more opportune time. The status of this field during the next several months may depend entirely upon the attitude of the Ohio Oil Co., as this concern's No. 1 Bloemer has all the earmarks of a potential producer in the deep zone. If the Ohio company successfully completes this well as a commercial producer and suspends production immediately subsequent to completion, there will be no necessity of deep zone exploitation at the present time. If, on the other hand, the Ohio Oil Co. keeps No. 1 Bloemer on production, other operators will be obliged to undertake deep drilling. As has already been mentioned, the Ohio, Union, Associated, Continental and other operators holding productive or potentially productive acreage in this field, are responsible operators and are not expected to precipitate deep zone development.

The Rosecrans Field of Los Angeles Basin is expected to come back into the spotlight again in the not far distant future due to deep zone exploration work now under way by the Barnsdall Oil Co. This area is not expected to be as prolific as the North Belridge Field, but at the same time it could exert a decidedly unfavorable effect on the production situation if deep zone exploitation was carried on at this time. The importance which attaches to the work of the Barnsdall Oil Co. in the Rosecrans Field lies in the probability that this company has discovered a new deep productive horizon in the extreme western part of the field. In order to confirm this belief, the company is cleaning out No. 5-A Rosecrans preparatory to a resumption of drilling at 5,273 feet. Correlation work indicates the probability that the Barnsdall company will pick up the new Trust zone around the 6,100-foot level. It will be recalled that the Barnsdall Oil Co. recently completed No. 2 Trust, an edge well located in the western end of the field, a month or so ago. A check of wells drilled nearer the apex of the structure indicates that no project was drilled below the 6,000-foot level, although one or two closely approximate this depth. The significance which attaches to this work lies in the fact that a deep drilling campaign will be precipitated in the southern end of the field if No. 5-A Rosecrans of the Barnsdall is successfully completed as a flowing well. Several pieces of property have changed hands during the course of the past 30 days in anticipation of the work now being undertaken by the Barnsdall. The properties in question will undoubtedly be productive if No. 5-A Rosecrans comes in under a natural flow, as most of them are fairly well located with respect to the contours of upper productive horizons. Shortly after the development of deep zone production at Rosecrans we may anticipate the starting of several new wells, which will in turn require offset drilling by the Barnsdall and Union.

Future Curtailment

Due to the tremendous production possibilities of Kettleman Hills and practically virgin zones in the North Belridge, Dominguez, West Coyote, Elwood and Ventura Avenue Fields, it is obvious that curtailment, or proration of production, in one form or another, must be continued in California for several years. It is quite likely, that the present method of curtailment will be revised when business improves, so that flush fields and undeveloped zones will bear most of the burden of curtailment. In other words, pumping wells will possibly be curtailed say 10 per cent with the balance of curtailment imposed upon flush fields where the lifting cost is necessarily lower. Due to the large number of wells which have been standing shut in for several years, it may be another two years or so before this condition can be anticipated, unless there should be a substantial improvement in the demand for crude and refined oils in the meantime. It might not be amiss to say that California has enough oil in sight at the present time to fulfill normal requirements for the next 10 or 15 years without the drilling of another single wildcat. Fortunately, most of the deep virgin zones in proven fields will be held back as the surface acreage is held under lease by responsible operators, and future drilling will consequently be conducted along conservative lines in order to preclude demoralization of marketing conditions existing at the time of development.

Lost Hills

The Associated, which is drilling a joint test in the Lost Hills Field of

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	December 17		December 10			
Intercoastal-domestic—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Crude oil	.....	.....	.....	.....	213,322	.....
Diesel and gas oil	246,063	35,152	95,375	13,625	1,635,228	1,566,802
Gasoline	.....	.....	116,970	16,710	7,443,140	13,098,675
Kerosene	78,759	11,251	.....	.....	280,481	187,934
Foreign exports—						
Crude oil	527,418	75,345	223,183	31,883	8,213,791	6,963,391
Fuel oil	133,285	19,041	117,178	16,740	7,649,820	12,995,524
Diesel and gas oil	28,016	4,002	166,538	23,805	2,733,362	3,409,223
Gasoline	.....	.....	.....	.....	7,874,919	8,256,913
Kerosene	.. ..	.....	.....	.....	2,725,099	1,645,733
Lubricants	.....	.....	.....	.....	.....	36,353
Naphtha distillates	.....	.....	.....	.....	120,075	.....
Coastwise-domestic—						
Crude oil	209,921	29,989	457,150	65,307	13,699,354	20,426,265
Fuel oil	218,044	31,149	105,185	15,026	11,298,201	13,852,878
Diesel and gas oil	53,483	7,641	40,923	5,846	1,354,035	1,431,879
Gasoline	301,211	43,070	123,932	17,705	14,527,173	14,163,735
Kerosene	.....	.....	6,639	948	160,886	318,362
Naphtha distillates	.....	.....	.....	.....	.....	4,952

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	.....	.....	.....	.....	650,980	.....
Gasoline	89,645	12,806	.....	.....	1,251,702	1,187,824
Kerosene	25,295	3,614	.....	.....	257,686	.....
Lubricants	.....	.....	.....	.....	31,804	38,236
Foreign exports—						
Crude oil	.....	.....	.. ..	.....	889,922	494,511
Fuel oil	.....	.....	.....	.....	964,102	1,589,858
Diesel and gas oil	32,895	4,698	46,445	6,635	772,957	606,231
Gasoline	105,920	15,131	109,035	15,576	3,931,270	4,474,039
Kerosene	20,630	2,947	.....	.....	1,008,029	914,099
Lubricants	.....	.....	.....	.....	30,094	25,693
Coastwise-domestic—						
Fuel oil	121,848	17,407	62,591	8,942	2,970,519	3,632,245
Diesel and gas oil	56,848	8,121	51,780	7,399	438,746	438,552
Gasoline	32,694	4,671	70,801	10,114	3,674,799	4,244,319
Kerosene	.....	.....	5,974	853	139,968	287,045
Naphtha distillates	.....	.....	.....	.....	.....	49,780

Kern County, with other operators holding adjacent acreage, spudded in No. 1 Williamson late last week and normal progress has been recorded since the initiation of drilling. This well will be carried on down as a conclusive test. An unusually large cellar is being utilized and the company contemplates landing a 21-inch surface string and cementing a string of 16-inch casing below the high head water encountered in this field around the 3,000-foot level. Due to previous unsuccessful work in the Lost Hills Field, the Associated's project will be watched with more than passing interest as it should definitely determine the possibility of developing deep production, barring of course the development of mechanical trouble. The Standard Oil Co. is cleaning No. 1 Mascot, a deep test in the Midway-Sunset Field, Kern County, preparatory to conducting another production test above the 9,306-foot level. Two new wells are being started in this field, one of which, No. 2 Sunset of Lavan, Avery & Jordan, should begin making hole within the next few days. Fred D. Turner's No. 2 Cypress will probably not begin making hole until along about the tenth of January.

The Shell Oil Co. has just finished No. 6 Vedder in the Mount Poso Field of Kern County, but this project will not be given a production test for another few days. In the Round Mountain Field, the Coffee Petroleum Co. has finished No. 3 in Section 6-28-29 and it looks good for approximately 225 bbls. per day from 1,627 feet. The California Western Oil Co. has spudded in No. 11 in this field and it should be finished some time during the course of the next 30 days as the formation at Round Mountain is conducive to relatively fast footage. Tom H. Purman reports some excellent showings in his wildcat in the Gould Hills at 5,350 feet, but no decision has been reached with respect to the advisability of conducting a production test at present. The Fruitvale Oil Co. is rotating in the oil sand in its No. 1 in the Fruitvale Field of Kern County at 3,928 feet and this project should be listed for early completion. J. G. Hussey has graded location for a new well to be drilled on the Anderson property in Section 21-29-27 and material should be placed on ground shortly.

Long Beach

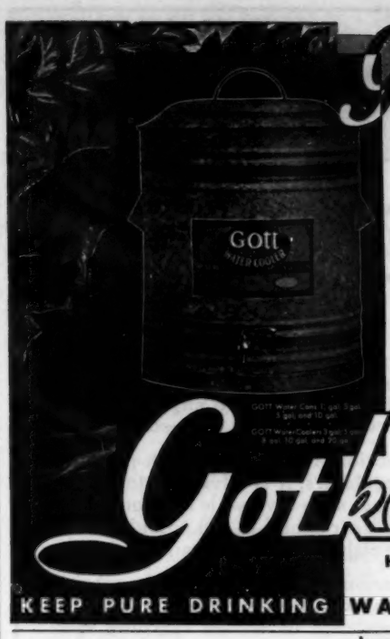
Although the Long Beach Field is over 11 years old, the district sustains spasmodic development. During the past week work has been resumed on two old abandonments, and additional drilling started on two new holes. The new work instituted this week covers S. S. Whortley's No. 4 Signal and J. E. O'Donnell's No. 2 Walker, the material for each having just been placed on the ground. Otis T. Butler is building a new rig over an abandoned hole of the Ganco Oil Co. and expects to begin cleaning out some time early in January. The Delaney Petroleum Co., operating under the personal supervision of A. J. (Art) Delaney, is rigging up rotary equipment to resume work in the Ring Petroleum Corp.'s No. 15, an abandoned hole. Woods & Callahan recently acquired the Del Mar lease in the Long Beach Field, originally drilled by the Graham & Loftus Oil Corp., and is building a rig over the abandoned hole. Hoyt & Wilson are still working on No. 1 Merritt, a recent recompletion pumping 125 bbls. of 27 gravity oil per day from 6,720 feet, in an effort to exclude water which, since completion of the well, has been approximately 40 per cent of the gross production. The Carson Oil Co.'s No. 13 Signal, a recent recompletion, proved an excellent Christmas present as it is doing 298 bbls. of exceptionally clean 28.4 gravity oil and 1,305,000 feet of natural gas per day from 4,794 feet.

Santa Barbara

Hector McIntosh nas just completed No. 1 Rascob, a new well in the Santa Barbara Mesa Field, pumping 204 bbls. of exceptionally clean 17.3 gravity oil per day from 2,091 feet. B. F. Webb's No. 1 Knott, at present standing cemented at 2,187 feet, should be the next well given a production test in the Santa Barbara Mesa Field and it would not be at all surprising if another fairly good producer was chalked up. Operators in the Santa Barbara Mesa Field have finished several commercial producers in the past six months, but this field has not been a factor of any consequence due to inadequate pipe line facilities. Several attempts have been made to secure an outlet for the production of this field and a movement now under way may be productive of satisfactory results early in 1933. The Santa Barbara Mesa Field is only of minor consequence and for this reason will not cause any difficulty from a production standpoint. The Barnsdall and Rio Grande topped the pay in No. 9 on tideland permit No. 88 in the Elwood Field of Santa Barbara County at 3,254 feet, and an early completion is anticipated. In conformity with the gentlemen's agreement prevailing with respect to development work at Elwood, the Barnsdall's new project will be finished in the upper, or Vaqueros, formation. In the Rincon Field of Ventura County, the Indian Petroleum Co. is drilling out cement preparatory to conducting an early production test. On Santa Rosa island, located approximately 25 miles off the coast of Santa Barbara County, the Standard is rotating ahead in a wildcat at 5,775 feet. This test has not yet shown any favorable indications, but it is intended to make a conclusive test before pulling out. In the Kettleman North Dome Field, the Kettleman North Dome Association has suspended drilling operations on No. 38-34-J, a deep test located in Section 34-21-17, due to a complicated fishing job which developed at 8,819 feet. The Superior Oil Co. has started rig construction for No. 5 Huffman, a new well to be started on this property early in the new year. The Union Oil Co. has been recording exceptionally fast footage in No. 3 Amerada King, but this potential producer is not expected to be completed until some time in March. The Standard Oil Co. is still held up with mechanical trouble in No. 6-29-V in

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.	T.	R.	Depth	Status—
Hines Pet., No. 1 Ocean Park, Los Angeles Co.	8-	2-	15	7,414	suspended
Taylor Oil Co., No. 1 Culver, Los Angeles Co.	12-	2-	15	6,238	suspended
Co-operative Dev. Co., No. 1 Del Rey, Los Angeles Co.	26-	2-	15	6,698	abandoning
Del Rey Hills Corp., No. 1 Del Rey, Los Angeles Co.	26-	2-	15	rig	suspended
Palm Ridge Oil Co., No. 1 Palms, Los Angeles Co.	2-	2-	15	3,401	suspended
Lawndale Pioneers, Inc., No. 1 Peck, Los Angeles Co.	20-	3-	14	6,378	cleaning out
Williams Oil Co., No. 1 Monets, Los Angeles Co.	23-	3-	14	rig	rigging up
Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co.	7-	2-	14	5,863	swabbing
Baldwin Hills Synd., No. 1 Inglewood, Los Angeles Co.	17-	2-	14	4,990	cleaning out
Pacific Oil Inv. Co., No. 1 Wilmington, Los Angeles Co.	28-	4-	13	916	sd. sh. drilling
Wilmington Oil Co., No. 1 Wilmington, Los Angeles Co.	28-	4-	13	421	sd. drilling
Jones, W. L., No. 1 Lynwood, Los Angeles Co.	31-	2-	12	4,480	suspended
Roberts, L. E., No. 1 Bell, Los Angeles Co.	29-	2-	12	mtl.	building rig
Hutcheson & Andrus, No. 1 El Monte, Los Angeles Co.	11-	1-	11	1,397	suspended
Smith, J. A., No. 1 Hasley, Los Angeles Co.	32-	5-	17	3,515	suspended
Alexander, W. L., No. 1 Newhall, Los Angeles Co.	1-	3-	16	412	hd. sd. drilling
Garliepp, F. J., No. 1 Newhall, Los Angeles Co.	14-	3-	16	mtl.	building rig
Ball, W. T., No. 1 Newhall, Los Angeles Co.	34-	3-	16	3,582	cleaning out
Big Four Oil Co., No. 1 Newhall, Los Angeles Co.	32-	4-	16	rig	rigging up
Marble, Willard, No. 1 Van Nuys, Los Angeles Co.	6-	2-	16	1,598	cleaning out
Ajax Pet., No. 1 Newport, Orange Co.	31-	6-	10	7,259	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29-	6-	10	1,970	resume work
Mineral Exploration, No. 1 Capistrano, Orange Co.	8-	8-	7	4,260	suspended
Orangethorpe Pet., No. 1 Brea, Orange Co.	32-	3-	10	4,560	suspended
Spindletop Oil Co., No. 1 Salton Sea, Riverside Co.	25-	7-	10	3,590	suspended
Keeley, H. J., No. 1 Corona, Riverside Co.	21-	4-	6	mtl.	building rig
Duncan, N. L., No. 1 Sagebrush, Riverside Co.	8-	4-	6	1,157	suspended
Colan Dev. Co., No. 1 Redlands, San Bernardino Co.	25-	1-	2	2,392	suspended
Great American Pet., No. 1 Chino, San Bernardino Co.	18-	2-	8	1,291	gr. sd. drilling
Mason Oil Co., No. 1 Salton Sea, Imperial Co.		1-17-15		680	suspended
Woods, D. H., No. 1 Salton Sea, Imperial Co.		7-11-16		774	suspended
San Felipe Oil Co., No. 1 Borega, San Diego Co.	25-11-		8	494	suspended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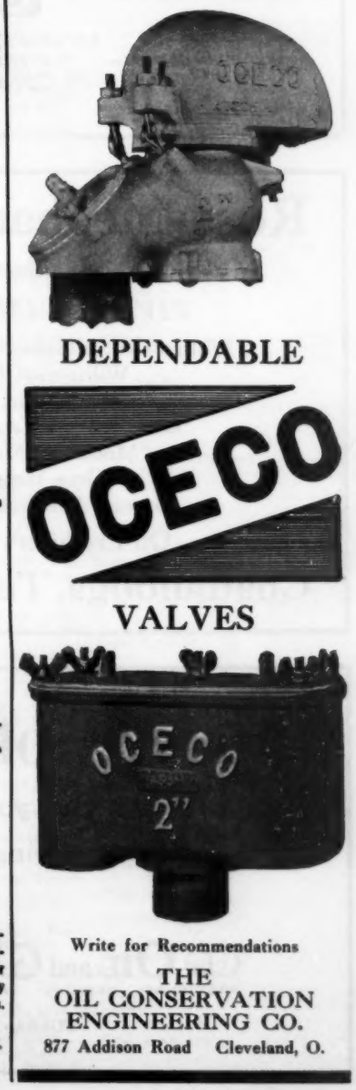

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THE Fulton Lever Safety Valve can be set to blow at any desired pressure between 10 and 100 pounds. Its action is positive and sure. It will not stick, nor in any way fail to relieve the line of excess pressure in case of need.

FOR low-pressure distribution, between the high-pressure and the low-pressure regulators, it is advisable to have a lever-type Safety valve. In fact such a valve is recommended for any service involving pressures of 5 to 100 pounds, while for lower pressures, dead-weight valves are available.

FULTON Safety Valves are of special design and superior workmanship and have been proved by many years of unfailing service. Correspondence is invited regrding C-F Gas Regulators, Safety Valves and other requirements for gas control. Descriptive leaflets will be mailed on request.

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the Middle Dome of Kettleman Hills and it begins to look like this fishing job will be a long drawn-out affair, particularly in view of the fact that the original difficulty has been complicated by the loss of wash pipe. Some progress has been recorded during the past 60 days, but the company has a long way to go before effecting a complete recovery.

Dominguez

The Republic Petroleum Co.'s No. 1 Childs, completed in the Dominguez Field of Los Angeles Basin a month or so ago, has been holding up in good shape, and while there has been a slight increase in the quantity of water present the well is still flowing 910 bbls. of 27.8 gravity oil, cutting 6 per cent. The water cut has increased since completion of this well, but is still a negligible factor. Encouraged by the successful completion of work on this well, the Republic Petroluem Co. is rigging up rotary equipment in No. 1 Childs, originally drilled by the Shell Oil Co., and will attempt to develop commercial production. The Shell, which originally held the Childs lease, was unsuccessful in developing commercial production and ultimately quitclaimed the property in question. The Republic Petroleum has already completed a 900-bbl. well on the Childs lease and will now attempt to develop commercial production in a hole drilled by the Shell to 4,288 feet and subsequently abandoned. The engineering staff of the Republic Petroleum Co. deserves commendable credit for the success already achieved in the development of the Childs property because the outlook did not appear any too promising previous to the initiation of work by the company. The Wilshire Oil Co., which is at present redrilling No. 5 Townsite in the Huntington Beach Field of Orange County, is making preparations to redrill and recondition Nos. 6 and 7 in the same field. The Wilshire company has been conducting a general reconditioning program on many of its wells during the past several months. In the Santa Fe Springs Field, the company reconditioned a number of wells and where this rejuvenation work was unsuccessful subsequently plugged back the small producers from the lower to the upper zones. The Union Oil Co. is rigging up No. 5 Del Rey, a new well to be drilled in the Playa Del Rey Field of Los Angeles Basin, and the bit in this well is expected to begin making hole some time during the course of the coming week. East of the Playa Del Rey Field, the Co-operative Development Co. is abandoning No. 1 Community as a duster at 6,698 feet. In the Newport district, south of Huntington Beach, the Nuoil Co. is fishing for the liner in No. 2 Banning preparatory to a resumption of work.

Appeal From Decision of Missouri Commission

JEFFERSON CITY, Mo., Dec. 30.—A decision by the State Public Service Commission holding the Cities Service Pipe Line Co. was under the commission's jurisdiction was upheld by the Cole County Circuit Court.

The Cities Service Pipe Line, which brings gas into Missouri from Oklahoma, Texas and Kansas, supplies the Kansas City Gas Co. for industrial purposes at a flat rate of 40 cents per 1,000 feet. The commission ruled that since both companies are owned by Cities Service, this in effect was not a bona fide sale and brought the pipe line under the commission's jurisdiction. This contention of the commission was upheld by Circuit Judge Walter S. Stillwell.

The pipe line company is expected to appeal to the Supreme Court.

The pipe line company contended that it engaged exclusively in interstate business, but the commission, in its ruling held the company was doing intrastate business. The commission has control only over companies' intrastate business.

In reaching its decision, the commission held the Kansas City Gas Co. acted merely as an agent of the pipe line company in the distribution of industrial gas.

TURNER VALLEY GAS SERVICE

CHATHAM, Ontario, Dec. 31.—McLeod Oil Co. of Calgary has completed installation of its gas main and services in the Turner Valley townsite, and has commenced the delivery of gas to its customers. Residual gas from the McLeod wells is being utilized.

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
Standard, No. 1 Santa Rosa Island, Santa Barbara Co.	unsurveyed	5,801	hd. sd. drilling
Meganos Oil Co., No. 1 Lompoc, Santa Barbara Co.	28- 8-34	....	material
Smith, R. W., No. 1 Purisima, Santa Barbara Co.	18- 7-34	1,471	suspended
Duel, O. S., No. 1 Naples, Santa Barbara Co.	7- 4-29	5,132	suspended
Equity Oil Co., No. 1 Coal Oil Point, Santa Barbara Co.	24- 4-29	3,750	suspended
Bolsa Chica, No. 1 Coal Oil Point, Santa Barbara Co.	25- 4-29	4,089	suspended
Casitas Oil Co., No. 1 Carpinteria, Santa Barbara Co.	tideland	3,310	suspended
Cuyama Oil Co., No. 1 Cuyama, Santa Barbara Co.	12-10-27	2,162	suspended
Woodrow Pet., No. 1 Rincon, Ventura Co.	4- 3-24	6,106	fishing
Indian Pet., No. 1 Rincon, Ventura Co.	tideland	2,115	prod. test
Sovereign Oil Co., No. 1 Fillmore, Ventura Co.	23- 4-19	2,269	sd. sh. drilling
Honolulu Consolidated, No. 1 Miguelito, Ventura Co.	23- 3-24	3,162	drill out cmt.
C.C.M.O., No. 3-A Miguelito, Ventura Co.	23- 3-24	mtl.	building rig
Macrate, A. N., No. 1 Ojai, Ventura Co.	27- 4-23	377	suspended
Wilshire Oil Co., No. 1 Sulphur Mountain, Ventura Co.	20- 4-21	1,451	br. sh. drilling
Mosher, J. W., No. 1 Santa Paula, Ventura Co.	22- 4-21	816	br. sh. drilling
Superior Oil Co., No. 1 Timber Canyon, Ventura Co.	13- 4-21	5,884	plug 3,840 ft.
Petro Producing Co., No. 1 Timber Canyon, Ventura Co.	18- 4-20	2,312	suspended
International Oil Developers, No. 1 Conejo, Ventura Co.	33- 2-20	2,440	hd. sd. drilling
Anderson, C. L., No. 1 Santa Susana, Ventura Co.	36- 3-18	....	grading
Las Posas Pet. Co., No. 1 Las Posas, Ventura Co.	22- 3-20	rig	suspended
Milham Exploration, No. 21 Buttonwillow, Kern Co.	1-28-22	2,450	set pipe
Milham Exploration, No. 22 Buttonwillow, Kern Co.	31-27-23	mtl.	building rig
Purman, T. H., No. 1 Gould Hills, Kern Co.	23-29-21	5,360	sd. sh. drilling
General Pet., No. 1 Belridge, Kern Co.	30-28-21	5,260	suspended
Cumberland Oil Co., No. 2 Devil's Den, Kern Co.	17-26-18	3,270	suspended
Holloway, A. S., No. 1 Devil's Den, Kern Co.	11-25-18	1,223	br. sh. drilling
Hanna, Tom, No. 1 Devil's Den, Kern Co.	25-25-18	3,516	suspended
Pyramid Hills Oil Co., No. 1 Devil's Den, Kern Co.	24-25-18	2,281	cleaning out
Fowler, F., No. 1 Blackwell Corner, Kern Co.	15-26-19	3,170	suspended
Associated, No. 1 Lost Hills, Kern Co.	2-26-20	1,120	sd. sh. drilling
Seminole Oil Co., No. 1 Lost Hills, Kern Co.	29-25-21	....	location
Kingsburg Expl. Co., No. 1 Kingsburg, Fresno Co.	30-16-23	2,970	suspended
Graham & Loftus, No. 1 Raisin City, Fresno Co.	20-15-18	2,121	sd. sh. drilling
Emerich Oil Co., No. 1 Mendota, Fresno Co.	35-13-13	....	material
Kent & McDonald, No. 1 Carrizo Plains, San Luis Obispo	3-32-22	3,815	suspended
Emerich Oil Co., No. 1 Carrizo Plains, S. Luis Obispo Co.	22-32-22	1,841	suspended
Indian Dome Oil Co., No. 1 Edna, San Luis Obispo Co.	26-31-12	3,352	suspended
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,191	suspended
Shell, No. 1 San Miguel, San Luis Obispo Co.	4-25-12	4,077	drill out cmt.
Pacific Inland, well No. 1, Monterey Co.	19-23-15	2,441	suspended
Thomas Pet., No. 1 Parkfield, Monterey Co.	31-22-14	1,011	sd. sh. drilling
Western Gulf, No. 1 Watsonville, Monterey Co.	29-12- 2	3,121	gr. sh. drilling
Guess, E. B., No. 1 Corcoran, Kings Co.	7-21-21	6,197	suspended
Triune Oil Co., No. 1 Dudley Ridge, Kings Co.	5-22-20	1,098	suspended
Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co.	9-22-20	3,012	suspended
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	36-23-17	5,812	cemented
Kettleman Pacific Oil Co., No. 1 Avenal, Kings Co.	11-23-16	....	material
Magee & Stone, No. 1 Alpaugh, Kings Co.	34-24-22	5,060	suspended
Ducor Pet. Co., No. 1 Ducor, Tulare Co.	14-24-27	2,200	suspended
Inland Valley Oil Co., No. 1 Visalia, Tulare Co.	24-17-24	2,092	suspended
Ellis & Sanford, No. 1 Tulare Lake, Tulare Co.	20-24-23	1,490	suspended
Napa Oil Co., No. 1 Griffith, Napa Co.	7- 8- 3	3,260	sd. sh. drilling
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	5- 2-10	4,813	suspended
Rushing Oil Co., No. 1 Waterford, Stanislaus Co.	20- 3-13	2,653	sd. sh. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo County	33-12- 3	3,045	suspended
Los Banos Pet., No. 1 Los Banos, Merced Co.	26-10- 9	rig	suspended
Buttes Oilfields Co., No. 1 Marysville, Sutter Co.	35-16- 1	1,102	hd. sd. drilling
Tehama Pet. Co., well No. 1 Tehama Co.	4-22-15	981	hd. sd. drilling
Orland Synd., No. 1 Orland, Tehama Co.	31-23- 3	3,400	suspended

Summary of Statements Made December 10, Relating to Business of Various Pipe Lines for Month Ending November 30.

	Gross stocks	Runs from wells	Other receipts	Regular deliveries	Other deliveries
National Transit	653,197.76	186,697.78	811,967.87	502,396.97	554,504.76
Southwest Pa. P. L.	285,254.12	56,303.64	740,215.83	444,753.50	385,718.65
Eureka P. L.	396,267.48	227,719 77	225,164.84	249,230.42	209,065.12
Buckeye P. L. (Macksburg)	288,885.93	221,232.82	145,763.76	246,783.10	103,417.82
Buckeye P. L. (Lima, etc.)	2,492,210.50	60,705.35	2,103,015.89	1,409,439.45	776,969.67
Buckeye P. L. (Cleveland)	33,101.01	9,299.53	221,190.44	1,463.62	236,564.66
Indiana P. L.	495,619.45	1,368.36	1,226,943.64	957,560.92	279,062.41
Southern P. L.	231,099.17			39,328.54	
Bradford Trans.	281,278.89	381,443.13		471,869.30	
New York Transit	100,309.58	33,248.55	162,888.23	190,178.82	
Northern P. L.	220,986.55		482,517.30	125,955.13	358,969.69
Tide Water P. L.	558,704.04	28,785.36		381,447.02	
Tuscarora Dev.	8,833.80			160,075.90	
Total November 30	6,547,748.27	1,201,804.04	6,119,667.80	5,180,482.69	2,899,212.78
Total October 31	7,295,653.59	1,206,921.91	5,018,874.09	4,528,132.44	2,412,767.81
Difference	747,905.32	5,117.87	100,793.71	652,350.25	486,444.97

Wildcat Operations in Kansas

(Continued from Page 45)

HARVEY COUNTY

Phillips Pet. Co.'s No. 1 Weeks, NE SE NE Sec. 30-23-2..Drlg. 1,025 ft.

MARION COUNTY

Farrell et al's No. 1 Williamson, C NW SE Sec. 21-19-4..S.D. 1,100 ft.
Vernon et al's No. 1 Schmidt, C SW NW Sec. 35-19-1.....S.D. 3,215 ft.

McPHERSON COUNTY

Larlo O. & G. Co.'s No. 1 Wilke, C SE NE Sec. 34-20-4w..Drlg. 200 ft.
Holcomb & Trummer's No. 1 Waltner, SW NE SE Sec. 19-20-2w .....Location.
Whan et al's No. 1 Nelson, NW SE Section 18-19-2w.....Location.
Snyder et al's No. 1 Carlson, SE cor. Sec. 4-19-3w.....S.D. 2,858 ft.
Sidwell et al's No. 1 Nichols, NE NW NW Sec. 28-17-1w..S.D. 1,205 ft.

MORTON COUNTY

Hydraulic Oil Co.'s No. 1 State Land, NW SE Sec. 22, 34-43w .....T.D. 3,640 ft.; temp. abd.

NESS COUNTY

Sinclair Prairie Oil & Gas Co.'s No. 1, C SW SW Sec. 16-19-21w .....Drlg. 3,914 ft.

NORTON COUNTY

Richards et al's No. 1 Colby, Sec. 17-4-21w.....Rig.

OSAGE COUNTY

Briggs & Smith's No. 1 Wood, SE NW Sec. 21-14-15....S.O. 2,190-2,200 ft.; temp. abnd.

PRATT COUNTY

Ninnescah O. & G. Co.'s No. 1 Hardesty, SW SE SE Sec. 28-27-11w .....T.D. 3,420 ft.; water, S.D.

RENO COUNTY

Skelly Oil Co.'s No. 1 Cole, C SE NW Sec. 4-26-8w .....Drlg. 1,300 ft.
T. L. Johnson's No. 1 Crotts, NE NW NE Sec. 27-26-10w..S.D. 50 ft.

RICE COUNTY

R. Ramsey's No. 1 School Lot, NW SW NW Sec. 32-19-9w..Drlg. Sil. 3,245-84 ft; made 296 bbls.; completed.
Langston et al's No. 1 Wells, NE SE Sec. 4-20-9w.....Rig.
J. Liggett et al's No. 1 Thodel, C NW NW Sec. 11-21-7w..S.D. 50 ft.

SALINE COUNTY

Frank Dieter's No. 1 Fulton, SW NW Sec. 14-16-2w.....Rig.

SEDGWICK COUNTY

Cameron-Great Basin Oil Co.'s No. 1 Landon, C SE NW Sec. 13-28-2 .....Top Sil. 3,303 ft; S.D. 3,516 ft.

STEVENS COUNTY

Argus Prod.'s No. 2 Christopher, C NE Sec. 10-33-39w....S.D. 5,521 ft.

STAFFORD COUNTY

Stringer et al's No. 1 Swindle, SW NE Sec. 2-25-11w.....Spudded; S.D.

SUMNER COUNTY

Deal Oil & Gas Co.'s No. 1 Thompkins, SW cor. Sec. 26-33-1 .....Machine.
Trees Oil Co. and Shell's No. 1 Springate, NE SE SW Sec. 6-34-2 .....Abd. wtr. 4,010 ft.

WOODSON COUNTY

Steedy et al's No. 1 Ryan NE SW SW Sec. 32-24-14 .....Drlg. 1,721 ft.

Gulf Coast Fields and Wildcats

(Continued from Page 48)

BARBERS HILL—CHAMBERS COUNTY

Humble O. & R. Co.'s No. 1 Kirby, Henry Griffith League, 208 ft. from S line, 100 ft. from E line of lease .....Drlg. salt 3,353 ft.
Mills Bennett Prod. Co.'s No. 1-C Gulf fee, Wm. Bloodgood Sur., 150 ft. N of Gulf's No. 1 Fisher fee ....Cored sand 2,923-50 ft.
Mills Bennett Prod. Co.'s No. 5 Kirby, Henry Griffith League, 400 ft. from W line, 41 ft. from S line of tract ..... Sand showing oil 3,981-4,003 ft; cmtd. 9⅝-in. csg. 3,971 ft.
D. B. McDaniels' No. 6 Wilburn, Henry Griffith League, 240 ft. W of No. 5 .....Drlg. salt 2,808 ft.
Sinclair Prairie Oil Co.'s No. 2 Smith (W.O.), W. D. Smith Sur., 39 ft. from N line, 50 ft. from E line of 30-ac. tract .....Drlg. packed sand 5,886 ft.
Sinclair Prairie Oil Co.'s No. 13 Wilburn, Henry Griffith League, 150 ft. W of No. 11 .....Drlg. shale 3,154 ft.
Sun Oil Co.'s No. 15 J. Wilburn, Wm. Hodges Sur., 343 ft. from N line, 420 ft. from W line of lease .....Drlg. salt 1,871 ft.
The Texas Co.'s No. 3 Lawrence fee, Henry Griffith League, 740 ft. W of E line in center of tract.....T.D. 1,386 ft; cmtd. cavity.
The Texas Co.'s No. 9 Wilburn, Henry Griffith League, 530 ft. E of NW cor. and 50 ft. S of N line .....T.D. 1,204 ft; cmtd. cavity.
Texas Gulf Prod. Co.'s No. 12-H Kirby, Henry Griffith League, 429 ft. W of No. 8-H and 65 ft. N of S line..Broken rock 1,206 ft; cmtd. cavity.
Texas Gulf Prod. Co.'s No. 3 Tarbutton, Henry Griffith League, 746 ft. from E line in center of tract.....T.D. 4,628 ft; sidetracked at 3,544 ft; drlg. shale 3,850 ft.
Texas Gulf Prod. Co.'s No. 2 O. K. Winfrey, W. D. Smith Sur., 295 ft. N of SW cor. of A. E. Barber lease, 100 ft. W of E line of Winfrey lease .....Salt 6,208-53 ft; D.S. stuck 4,700 ft; milling and fishing drill pipe 2,816 ft.
Yount Lee Oil Co.'s No. 4-A Zadie Fisher, Wm. Bloodgood Sur., 301 ft. from W line, 96 ft. from S line of tract .....T.D. 6,362 ft; drlg. sidetracked hole in sand and lime 5,908 ft.

LOST LAKE—CHAMBERS COUNTY

Pure Oil Co.'s No. 16 Mayes, E. H. R. Wallis Sur., 1,825 ft. N, 1,429 ft. E of No. 1 Lost River .....Abd. in anhydrite 5,062 ft.

BLUE RIDGE—FORT BEND COUNTY

San Jacinto Oil Co.'s No. 1 Blakely, 250 ft. from W line, 50 ft. from N line of Blk. 9, Sec. D, E. Drek Sur. ....No report.

RABBS RIDGE—FORT BEND COUNTY

Gulf Prod. Co.'s No. 3 Gubbels, Samuel Kennedy Sur., 1,000 ft. N of No. 1 and 300 ft. E of W line of 100-ac. tract .....Drlg. sand and boulders 1,176 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 10-A F. I. Booth, Samuel Kennedy Sur., 2,779 ft. along N line of lease from SE cor. of J. Gubbels' 100-ac. lease and 485 ft. S at right angles .....Rig.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 6 George, J. Rabb Sur. .....Drlg. shale 1,835 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 4-A George, J. Rabb Sur. .....Derrick.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 7 Lockwood & Sharp, J. Rabb Sur. .....Abd. location.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 11-A Lockwood & Sharp, J. Rabb Sur. .....Location.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 12-A Lockwood & Sharp, J. Rabb Sur., 833 ft. E of No. 9..Drlg. gumbo and lime 3,512 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 9-B Lockwood & Sharp, J. Rabb Sur., 850 ft. E of No. 7 ....Drlg. sand 5,084 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 10-B Lockwood & Sharp, J. Rabb Sur., 1,750 ft. from E line, 400 ft. from S line of 938-ac. lease .....Drlg. sand and shale 5,050 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 5 T. R. Booth, Samuel Kennedy Sur. .....Drlg. gumbo 2,545 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 1 R. A. and O. H. Wolters, Robt. Peebles Sur., 325 ft. S and 500 ft. W of NE cor. of 1,000-ac. tract .....Derrick.
Humble O. & R. Co.'s No. 3 Gubbels, Samuel Kennedy Sur., 500 ft. N, 1,350 ft. W of SE cor. 190-ac. lease..Drlg. shale 1,689 ft.
The Texas Co.'s No. 4 Wolters, Samuel Kennedy Sur., 1,850 ft. N, 300 ft. W of SE cor. of lease .....Drlg. gumbo 1,236 ft.

SUGARLAND—FORT BEND COUNTY

Koimm Prod. Co.'s No. 1 Peterson, Wm. Littel Sur., 100 ft. SE, 100 ft. SW of NE cor. of tract .....Sandy shale 3,737 ft; reaming to set csg.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 3 Broussard, M. Dunman Sur., 150 ft. E of center of W line of tract .....Drlg. shale and lime 3,125 ft.
Yount Lee Oil Co.'s No. 30 Cade (W.O.), N. Fitzsimmons Sur. .....T.D. 5,787 ft; sidetracked stuck drill pipe; drlg. hard sand 5,340 ft.
Yount Lee Oil Co.'s No. 33 Cade, N. Fitzsimmons Sur., 3,505 ft. from N line, 1,615 ft. from E line .....Drlg. shale and lime 2,915 ft.
Yount Lee Oil Co.'s No. 1 Mathais fee, 150 ft. from S line, 192 ft. from E line of 23.44-ac. tract in Sarah Reeves Subd., Martin Dunman Sur. .....Shale 4,566 ft; cmtd. 7-in. csg. 4,505 ft.
Yount Lee Oil Co.'s No. 13 Smith, Martin Dunman Sur., 600 ft. W of No. 12 in line with Nos. 11 and 12 ....Abd. 4,621 ft.
Yount Lee Oil Co.'s No. 14 Smith, Martin Duman Sur., 900 ft. W of No. 13 .....Rig.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 92 Jorditt, C. F. Jorditt Sur., 200 ft. S of No. 90 .....Drlg. sandy shale 1,172 ft.

SOUR LAKE—HARDIN COUNTY

W. E. McKinney's No. 1 Maco Stewart, S. Jackson Sur., center of 5-ac. tract out of Maco Stewart 50 acres .....Location.
M. M. Miller's No. 1 Libbie Oil Co., Stephen Jackson Sur., 1,350 ft. NW of Houston Prod. Co.'s No. 1 Merchant .....Derrick.

ARIOLA—HARDIN COUNTY

Houston Oil Co.'s No. 1-Y Ariola fee, 5,610 ft. from W line, 5,610 ft. from N line of Ariola Sur. .....T.D. 5,208 ft; sidetracked 1,282 ft; and drlg. hard sand 2,227 ft.
Houston Oil Co.'s No. 1-Z Ariola fee, 3,000 ft. from W line, 5,610 ft. from N line of Ariola Sur. .....Shale 5,536 ft; reaming to set 6⅝-in. csg. on bottom to protect hole.
Republic Prod. Co.'s No. 3 Ariola fee, Ariola Sur., 660 ft. due S of Gulf's No. 1-A Kirby .....Derrick.

HUMBLE—HARRIS COUNTY

J. D. Clay's No. 5 Bender, R. Dunman Sur., 525 ft. from S line, 203 ft. from E line of 100-ac. tract .....Sand 1,155 ft.
Sun Oil Co.'s No. 66 River, Robert Dunman Sur., 1,722 ft. from S line, 284 ft. from E line of lease .....Derrick.
Sun Oil Co.'s No. 67 River, Robert Dunman Sur., 1,896 ft. from S line, 374 ft. from E line of lease .....Drlg. shale 905 ft.
Sun Oil Co.'s No. 71 River, Robert Dunman Sur., 374 ft. from E line, 1,191 ft. from S line of tract .....Comp. flowing 100 bbls. daily 1,288 ft.
E. M. Wilson's No. 2 Wheeler & Pickens, J. B. Stevenson Sur., 170 ft. from S line, 75 ft. from W line of Blk. 21 .....Comp. pumping 15 bbls. daily 1,398 ft.

MYKAWA—HARRIS COUNTY

Crown-Framer Oil Co.'s No. 2-A Sladons, Wm. Lovett Sur., 500 ft. E, 100 ft. N of SW cor. of lease .....Rig.
Leon Wilkerson's No. 1 Irwin, Wm. Lovett Sur., 300 ft. N of Humble's No. 1 Irwin .....Derrick.

PIERCE JUNCTION—HARRIS COUNTY

Gulf Prod. Co.'s No. 36 Taylor, James Hamilton Sur. No. 52, 650 ft. N of S line of survey, 100 ft. W of Rock Drlg. Co.'s No. 2 Hooks .....Rig.
Rio Bravo Oil Co.'s No. 15-A Settegast (D.D.), Jas. Kopman Sur. .....T.D. 4,331 ft; milling out to sidetrack 4,156 ft.
Rio Bravo Oil Co.'s No. 26-A Settegast, J. Kopman Sur., 1,210 ft. from N line, 750 ft. from E line of "A" lease .....Sandy shale showing oil 5,418-40 ft; reaming to set csg.

FANNETT—JEFFERSON COUNTY

Gulf Prod. Co.'s No. 6 Burrell, Wm. Smith Sur., 1,610 ft. N, 300 ft. E of SW cor. of 232-ac. tract .....Drlg. sand 4,950 ft.
Lowrie & Young's No. 1 Junker, Wm. Smith Sur., 125 ft. N, 100 ft. E of Gulf Prod. Co.'s No. 1 Junker in 260-ac. tract .....Cap rock 2,232 ft.

ESPERSON—LIBERTY COUNTY

Cranfill & Reynolds' No. 5 Esperson (W.O.), M. Duncan Sur., 100 ft. N line, 300 ft. E line .....Comp. flowing 60 bbls. net oil 250 bbls. wtr.; ⅝-in. choke 3,082 ft.
Cranfill-Reynolds Co.'s No. 10 Moore's Bluff, M. Duncan Sur., 1,500 ft. from E line, 2,100 ft. from N line of 632-ac. tract .....Drlg. 6,002 ft.

HULL—LIBERTY COUNTY

Carpenter & Parr's No. 2 Antilley, Jesse Devore Sur., 321 ft. W, 250 ft. S of NE cor. of 20-ac. lease .....Derrick.
Eclipse Oil Co.'s No. 1 Gordon, Jesse Devore Sur., 50 ft. out of NE cor. of Empire 13-ac. lease .....Rigging.
Empire G. & F. Co.'s No. 34 Barngrover, Jesse Devore Sur., 75 ft. out of SW cor. of lease .....Shale 5,219 ft; fishing drill pipe.
Gulf Prod. Co.'s No. 80 Phoenix (D.D.), Jesse Devore Sur. .....T.D. 4,396 ft; trying to plug bottom of hole.
Hannah Oil Co.'s No. 1 Hannah, Jesse Devore Sur., 100 ft. W of The Texas Co.'s No. 1 Hannah.....Standing 3,665 ft.
Lynd & Rowe's No. 1 Noble & Lynd, Jesse Devore Sur., 127 ft. out of SE cor. of 5-ac. tract .....S.D. 3,218 ft.
Porter & Baggett's No. 1 Baggett, Jesse Devore Sur., 80 ft. from W line, 50 ft. from S line of 171-ac. tract .....No report.
Republic Prod. Co.'s No. 148 Dolbear, Jesse Devore Sur., 250 ft. W of No. 139 .....Drlg. 1,650 ft.
D. L. Thibodeaux' No. 2 Taylor, Jesse Devore Sur., 100 ft. N of No. 1 .....Derrick.
Wilson Oil Co.'s (Aberoil Oil Co.) No. 1 Barrow, Jesse Devore Sur., 64 ft. from N line, 700 ft. from E line of 10-ac. tract .....Drlg. 3,900 ft.

LIBERTY—LIBERTY COUNTY

J. E. Teddlie's No. 1 Baldwin, Wm. White Sur., 100 ft. W of Navarro Oil Co.'s No. 4 .....Derrick.

CONROE—MONTGOMERY COUNTY

Alpha Oil Co.'s No. 1 Krohn, S. H. Bryan Sur., 466 ft. from S line in center E and W of 100-ac. tract ....Drlg. sand 135 ft.
Alpha Oil Co.'s No. 1-C South Tex. Dev. Co., T.&N.O. Sur. No. 13, 450 ft. from N line, 350 ft. from W line of 80 acres .....Location.

Amerada Pet. Corp.'s No. 1 South Tex. Dev. Co., C. A. West Sur., 350 ft. from N line, 466 ft. from W line of lease ..... Drlg. shale 2,729 ft.

Amerada Pet. Corp.'s No. 2 South Tex. Dev. Co., 466 ft. from S line, 410 ft. from W line of C. A. West Sur. ..... Derrick.

Bishop Oil Corp.'s No. 1 Rhoden, 466 ft. from E line in center N and S of 25.8-ac. tract ..... Derrick.

Bishop Oil Corp.'s No. 1 Rhoden, 466 ft. from W line in center N and S of 25.8-ac. tract ..... Location.

Danciger O. & G. Co.'s No. 1 Alexander, John McHorse Sur., center of 18-ac. tract ..... Drlg. shale 4,983 ft.

Farvin Oil Co.'s No. 1 John Rhodes, Wilson Strickland Sur., center of 14.9-ac. tract ..... Rigging.

Farvin Oil Co.'s No. 1 W. F. Stewart, Ransom House Sur., 466 ft. from N and W lines of lease ..... Drlg. shale 1,328 ft.

Farvin Oil Co.'s No. 1 R. Thompson, center of 10-ac. lease (Lots 55 and 58), C. A. West Sur. ..... Location.

Gem Oil Co.'s No. 1 Ezra Moorehead, John McHorse Sur., center of 6-ac. tract ..... Derrick.

Gulf Coast Drlg. & Prod. Co.'s No. 1 South Tex. Dev. Co., T.&N.O. Sur., 4,500 ft. E of No. 1 Keystone Mills ..... Dry and abd. 5,940 ft.

Gulf Coast Drlg. & Prod. Co.'s No. 2 Keystone Mills, Ashby James Sur., 1,386 ft E of NW cor., 467 ft. S of N line ..... Drlg. shale 2,617 ft.

Gulf Coast Drlg. & Prod. Co.'s No. 3 Keystone Mills, A. S. James Sur., 2,333 ft. from E line, 466 ft. from N line of Sur. ..... Rig.

Harrison & Abercrombie's No. 2 Alexander, John McHorse Sur., 964 ft. E of No. 1 or 1,535 ft. from W line and 391 ft. from N line of tract ..... Drlg. sticky shale 4,093 ft.

Harrison & Abercrombie's No. 3 L. Alexander, John McHorse Sur., 300 ft. from N line, 195 ft. from E line of 100-ac. lease ..... Comp. flowing 2,500 bbls. P.L. oil in first 7 hrs.; ¾-in. choke; tubing pres. 800 lbs.; T.D. 5,-121 ft.

Harrison & Abercrombie's No. 4 Alexander, John McHorse Sur., 350 ft. from E line, 425 ft. from S line of lease ..... Location.

Harrison & Abercrombie's No. 5 Alexander, John McHorse Sur., 466 ft. E of E line of Ransom House Sur., and 425 ft. from S line of lease ..... Location.

Harrison & Abercrombie's No. 6 Alexander, John McHorse Sur., 466 ft. from W line, 300 ft. from S line of lease ..... Location.

Harrison & Abercrombie's No. 1 Mrs. Lola McShan, T. M. Wiggins Sur., 466 ft. from N line in center E and W of lease ..... Location.

Hooper-Rutherford Oil Co.'s No. 5 Hooper, L&G.N. Sur., Abst. 649, 416 ft. from S line, 570 ft. from W line of lease ..... Derrick.

Hooper-Rutherford Oil Co.'s No. 4 Hooper, L&G.N. Sur. No. 649, center of tract E and W and due E offset Houston-Tidal's No. 1 Hooper ..... Derrick.

Houston Oil Co. and Tidal Oil Co.'s No. 3 Cartwright, John Davis Sur., 932 ft. W of No. 2 and 467 ft. from S line ..... Drlg. sand and shale 3,375 ft.

Houston Oil Co.-Tidal Oil Co.'s No. 4 Cartwright, John Davis Sur., 332 ft. from E line, 799 ft. from N line of lease ..... Location.

Houston Oil Co.-Tidal Oil Co.'s No. 5 Cartwright, John Davis Sur., 932 ft. E of No. 1 and 466 ft. from S line of lease ..... Location.

Houston Oil Co.-Tidal Oil Co.'s No. 6 Cartwright, John Davis Sur., 932 ft. E of No. 5 and 466 ft. from S line of lease ..... Location.

Houston Oil Co. and Tidal Oil Co.'s No. 2 Hamman, C. B. Stewart Sur., 467 ft. out of NE cor. of tract .... Drlg. sticky shale 3,783 ft.

Houston Oil Co.-Tidal Oil Co.'s No. 3 Joe Hamman, C. B. Stewart Sur., 467 ft. from E line, 1,511 ft. from S line of lease ..... Derrick.

Houston Oil Co.-Tidal Oil Co.'s No. 2 W. N. Hooper, Jr., L&G.N. Sur. No. 11, 466 ft. from S line of lease in center of tract E and W ..... Derrick.

Houston Oil Co.-Tidal Oil Co.'s No. 3 W. N. Hooper, Jr., L&G.N. Sur. No. 11, 667 ft. S of No. 1 in center of tract E and W ..... Derrick.

Humble O. & R. Co.'s No. 9-A Cartwright, J. Davis Sur., 933 ft. NE of No. 6 ..... Location.

Humble O. & R. Co.'s No. 9-A Cartwright, J. Davis Sur., 1,485 ft. from E line, 466 ft. from S line of lease ..... Spudded.

Humble O. & R. Co.'s No. 3 Dobbins, Ransom House Sur., 700 ft. S from NW cor. lease and 460 ft. easterly at right angles ..... Sand 5,088 ft; set screen.

Humble O. & R. Co.'s No. 4 Dobbins, Ransom House Sur., 1,064 ft. E of No. 2 and 466 ft. N of S line..... Drlg. sand and shale 2,130 ft.

Humble O. & R. Co.'s No. 5 Dobbins, Ransom House Sur., 1,050 ft. E of No. 4 and 350 ft. N of S line of lease ..... Drlg. sticky shale 2,422 ft.

Humble O. & R. Co.'s No. 6 Dobbins, Ransom House Sur., 466 ft. from E and S lines of lease ..... Location.

Humble O. & R. Co.'s No. 1-C Cartwright, John Davis Sur., 550 ft. from S line, 350 ft. from W line of lease ..... Location.

Humble O. & R. Co.'s No. 2-C Cartwright, John Davis Sur., 550 ft. from S line, 300 ft. from E line of "C" lease ..... Location.

Humble O. & R. Co.'s No. 3-C Cartwright, J. Davis Sur., 1,375 ft. from E line, 466 ft. from S line of lease ..... Location.

Humble O. & R. Co.'s No. 1-D Cartwright, John Davis Sur., center of 20-ac. "D" lease ..... Spudded.

Humble O. & R. Co.'s No. 1 Emory, W.C.R.R. Sur., Sec. 13, 466 ft. from S line, 330 ft. from W line ..... Sand showing oil 5,152 ft; cmtd. csg.

Humble O. & R. Co.'s No. 2 Emory, W.C.R.R. Sur., 2,-100 ft. from S line, 330 ft. from E line ..... Derrick.

Humble O. & R. Co.'s No. 1 Gallemore, John Davis Sur., NE offset J. Papadakis' No. 1 McDonald ..... Sand 5,145 ft; comp. flowing 95 bbls. per hr.

Humble O. & R. Co.'s No. 1-B Hirsch, D. McIntyre Sur., 350 ft. from S line, 450 ft. from W line of "B" lease ..... Derrick.

Humble O. & R. Co.'s No. 2-B Hirsch, D. McIntyre Sur., 450 ft. out of NW cor. "B" lease ..... Location.

Humble O. & R. Co.'s No. 5 Madeley, Ransom House Sur., 960 ft. S of No. 3 ..... Sand and shale 5,152 ft; cmtd.

Humble O. & R. Co.'s No. 6 Madeley, Ransom House Sur. ..... Drlg. shale 4,055 ft.

Humble O. & R. Co.'s No. 10 Madeley, Ransom House Sur., 1,715 ft. SE of No. 6 ..... Location.

Humble O. & R. Co.'s No. 2 McDonald, John Davis Sur., direct offset No. 1-B Cartwright ..... Comp. flowing 65 bbls. per hr. 5,131 ft.

Humble O. & R. Co.'s No. 1 Moore, Lemuel Smith Sur., approx. 1,325 ft. southwesterly along SE line from SE cor. and 466 ft. northwesterly at right angles... Drlg. shale 5,033 ft.

Humble O. & R. Co.'s No. 2 Moore, Lemuel Smith Sur., 1,398 ft. northerly and 466 ft. easterly at right angles from SW cor. ..... Sand and shale showing oil 5,015 ft; cmtd. csg.

Humble O. & R. Co.'s No. 3 H. N. Moore, Lemuel Smith Sur., 466 ft. from E line, 1,065 ft. from S line of survey ..... Spudded.

Humble O. & R. Co.'s No. 4 Moore, Lemuel Smith Sur., 960 ft. N of No. 2 ..... Location.

Humble O. & R. Co.'s No. 5 Moore, Lemuel Smith Sur., 1,000 ft. S of No. 2 ..... Location.

Humble O. & R. Co.'s No. 24 South Tex. Dev. Co., Theo. Slade Sur., 1,530 ft. W, 765 ft. S of NE cor. of survey ..... Sand showing oil 5,093 ft; cmtd. csg.

Humble O. & R. Co.'s No. 25 South Tex. Dev. Co., Theo. Slade Sur., 349 ft. S of No. 21 ..... Comp. flowing 48 bbls. per hr. ½-in. choke; T.D. 5,161 ft.

Humble O. & R. Co.'s No. 28 South Tex. Dev. Co., 1,-450 ft. from S line, 900 ft. from W line of T. C. Howell Sur. ..... Location.

Humble O. & R. Co.'s No. 29 South Tex. Dev. Co., 1,-900 ft. from S line, 1,300 ft. from E line of T. C. Howell Sur. ..... Location.

Humble O. & R. Co.'s No. 30 South Tex. Dev. Co., 466 ft. N of S line Theo. Slade Sur., north offset Tidal Oil Co.'s No. 2 Lewis ..... Sand and shale showing oil 5,050 ft; cmtd. csg.

Humble O. & R. Co.'s No. 31 South Tex. Dev. Co., 350 ft. N of S line Theo. Slade Sur., N offset Tidal Oil Co.'s No. 4 Lewis ..... Sandy shale showing oil 5,146 ft; cmtd. csg.

Humble O. & R. Co.'s No. 32 South Tex. Dev. Co., 1,-300 ft. from S line, 4,800 ft. from E line of Theo. Slade Sur. ..... Location.

Humble O. & R. Co.'s No. 33 South Tex. Dev. Co., 1,-900 ft. from S line, 4,000 ft. from E line of Theo. Slade Sur. ..... Location.

Humble O. & R. Co.'s No. 34 South Tex. Dev. Co., Theo. Slade Sur., 933 ft. NE of No. 33 ..... Location.

Humble O. & R. Co.'s No. 35 South Tex. Dev. Co., Theo. Slade Sur., 1,095 ft. NE of No. 34 ..... Location.

Humble O. & R. Co.'s No. 36 South Tex. Dev. Co., Theo. Slade Sur., 1,010 ft. NE of No. 35 ..... Location.

Humble O. & R. Co.'s No. 37 South Tex. Dev. Co., Theo. Slade Sur., 933 ft. NE of No. 36 ..... Location.

Humble O. & R. Co.'s No. 1-B South Tex. Dev. Co., C. T. Darby Sur., 450 ft. W of E line of survey, due W offset No. 1-A Hirsch ..... Sand and shale showing oil 5,010 ft; cmtd. csg.

Humble O. & R. Co.'s No. 2-B South Tex. Dev. Co., C. T. Darby Sur., due W offset No. 2 Emory ..... Drlg. sticky shale 2,354 ft.

Humble O. & R. Co.'s No. 3-B South Tex. Dev. Co., C. T. Darby Sur., due W offset No. 2-B Hirsch ..... Comp. flowing 50 bbls. per hr. 5,-148 ft.

Humble O. & R. Co.'s No. 1 Sullivan State Land, center of State land tract and due S offset Humble's No. 29 South Tex. Dev. Co. ..... Rig.

Humble O. & R. Co.'s No. 1 Williams, Lemuel Smith Sur., center of 46-ac. tract ..... Location.

Humble O. & R. Co.'s No. 1-D Alexander, John McHorse Sur., 577 ft. E of W line in center N and S of 20-ac. "D" lease ..... Sand showing oil 5,060 ft; cmtd. csg.

Humble O. & R. Co.'s No. 2-D Alexander, John McHorse Sur., 466 ft. from E line in center E and W of lease ..... Comp. flowing 124 bbls. per hr. 5,142 ft.

Midland Oil Co.'s No. 2 V. Walters, Wilson Strickland Sur., 1,398 ft. from W line, 466 ft. from S line of lease ..... Location.

Navarro Oil Co.'s No. 1 Gallemore, John Davis Sur., 280 ft. from N line, 180 ft. from E line of tract ..... T.D. 5,181 ft; plugged to 5,125 ft; set screen and running tubing.

Navarro Oil Co.'s No. 1 Perry heirs, C. M. Wiggins Sur., 466 ft. from W line of lease in center N and S.. Derrick.

Neversuch Oil Co.'s No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 466 ft. from S line in center E and W of 90 acres ..... Drlg. shale 4,320 ft.

North Star Oil Co.'s No. 1 Crestwood, T.&N.O. Sur. 15, 466 ft. from S and W line of 77-ac. tract ..... Location.

Pat Rutherford's No. 1 Keystone Mills, Lemuel Smith Sur., 466 ft. from E line of 60-ac. lease in center N and S ..... Derrick.

Showers & Moncrief's No. 1 Dunn, Wilson Strickland Sur., 466 ft. from N line, 350 ft. from E line ..... Drlg. shale and boulders 2,961 ft.

Showers & Moncrief's No. 2 Dunn, Wilson Strickland Sur., 900 ft. S of No. 1 ..... Location.

Showers & Moncrief's No. 3 Dunn, Wilson Strickland Sur., 900 ft. S of No. 2 ..... Location.

South Gulf Oil Co.'s No. 1 E. M. Rauh, T.&N.O. Sur. 5, 338 ft. from E line of 20-ac. lease in center of N and S ..... Location.

Southland Oil Co.'s No. 2 Cummings, Wilson Strickland Sur., 466 ft. from E line of survey, 934 ft. SE of No. 1 ..... Sand showing oil 5,021 ft; cmtd. csg.

Southland Oil Co.'s No. 3 Cummings, Wilson Strickland Sur., 990 ft. S of No. 2 ..... Drlg. sticky shale 3,849 ft.

Standard Oil Co. of Kansas' No. 1 Madeley, Ransom House Sur., 466 ft. S of N line, 465 ft. W of E of lease ..... Drlg. shale 4,915 ft.

Standard Oil Co. of Kansas' No. 2 Madeley, Ransom House Sur., 932 ft. S of No. 1 ..... Derrick.

Standard Oil Co. of Kansas' No. 1 Smith & Ratcliffe, lower W. S. Rhodes Sur., 466 ft. from N line, 1,066 ft. from E line ..... Location.

Standard Oil Co. of Kansas' No. 2 Smith & Ratcliffe, 1,065 ft. NW along SW line from SW cor. of lower W. S. Rhodes Sur., 460 ft. northeasterly at right angles ..... Drlg. shale 3,071 ft.

C. C. Steinberger's No. 2 South Tex. Dev. Co., T.&N.O. Sur., Abst. 568, 1,100 ft. from S line in center E and W of 25-ac. tract ..... Spudded.

Steinberger, Brown & Wheeler's No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 5, center of S 20 acres of 50-ac. lease ..... Drlg. shale 4,232 ft.

Sun Oil Co.'s No. 1 Keystone Mills, 466 ft. from N and E lines of John Bricker Sur. ..... Location.

Sun Oil Co.'s No. 1 W. S. Stewart, 466 ft. from S and E lines of J. M. Real Sur. ..... Location.

The Texas Co.'s No. 1 H. M. Dudley, C. B. Stewart Sur., 466 ft. S 15 deg. E, 466 ft. S 75 deg. W from NE cor. of lease ..... Spudded.

The Texas Co.'s No. 2 Moody, Ransom House Sur., 466 ft. S 15 deg. E and 466 ft. N 75 deg. E from NW cor. of lease ..... Comp. flowing 88 bbls. per hr.; ½-in. choke; 5,100 ft.

The Texas Co.'s No. 4 Moody, Ransom House Sur., 1,064 ft. E of No. 1 and 466 ft. S of N line ..... Sand showing oil 5,000 ft; cmtd. 7-in. csg. 4,997 ft.

The Texas Co.'s No. 5 Moody, Ransom House Sur., 1,549 ft. from E line and 466 ft. from N line of lease.... Drlg. shale 3,615 ft.

The Texas Co.'s No. 6 Moody, Ransom House Sur., 466 ft. from E line and 466 ft. from N line of lease..... Drlg. shale 3,552 ft.

The Texas Co.'s No. 7 Moody, Ransom House Sur., 1,306 ft. from N line and 466 ft. from E line of lease.... Derrick.

The Texas Co.'s No. 8 Moody, Ransom House Sur., 2,330 ft. from N line and 466 ft. from W line of leases.... Sand 5,000 ft; cmtd. 7-in. csg.

The Texas Co.'s No. 9 Moody, S 60 deg. W 3,879 ft., N 30 deg. W 254 ft. from SE cor. of Ransom House Sur. ..... Rigging up.

The Texas Co.'s No. 10 Moody, 3,030 ft. from E line, 600 ft. from S line of Ransom House Sur. ..... Location.

The Texas Co.'s No. 11 Moody, Ransom House Sur., S 75 deg. W 466 ft. and S 15 deg. E 285 ft. from SE cor. Wilson Strickland Sur. ..... Sticky shale 1,305 ft; cmtd. 10¾-in. csg.

The Texas Co.'s No. 13 Moody, 2,180 ft. from E line, 466 ft. from S line of Ransom House Sur. ..... Location.

The Texas Co.'s No. 14 Moody, 1,330 ft. from E line, 466 ft. from S line of R ansom House Sur. ..... Derrick.

The Texas Co.'s No. 16 Moody, 1,383 ft. SW along S line of Wilson Strickland Sur. from SE cor. and 466 ft. S at right angles in Ransom House Sur. ....Location.
The Texas Co.'s No. 2 Rhodes, 979 ft. 15 deg. W, 466 ft. N 75 deg. E of SW cor. of W. S. Rhodes Sur. ....Location.
The Texas Co.'s No. 3 Rhodes, Rhodes Sur., 1,854 ft. N 15 deg. W and 466 ft. N 75 deg. E of SW cor. of survey .....Derrick.
The Texas Co.'s No. 4 Rhodes, 2,786 ft. N 15 deg. W and 473 ft. N 75 deg. E from SW cor. of Rhodes Sur..Gumbo 1,274 ft; cmtd. 10¾-in. csg.
The Texas Co.'s No. 5 W. S. Rhodes, 466 ft. S of SW cor. of C. T. Darby Sur., and 350 ft. at right angles in W. S. Rhodes Sur. .....Location.
Harvey Thornton's No. 1 John Rhodes, Ransom House Sur., center of 3.29-ac. tract .....Drlg. 200 ft.
Tidal Oil Co.'s No. 2 Freeman, John Davis Sur., 1,384 ft. from S line, 332 ft. from W line of 36 acres ....Rig.
Tidal Oil Co.'s No. 2 Lewis Est., C. B. Stewart Sur., 467 ft. from N and W lines of Lewis 665.5-ac. tract.....T.D. 5,138 ft; comp. flowing 80 bbls. ptr hr.
Tidal Oil Co.'s No. 3 Lewis, C. B. Stewart Sur., 1,500 ft. from N line, 466 ft. from E line of lease .....Coring sand 5,066 ft.
Tidal Oil Co.'s No. 4 Lewis, C. B. Stewart Sur., 2,350 ft. from W line, 450 ft. from N line of lease .....Drlg. shale 5,135 ft.
Tidal Oil Co.'s No. 5 Lewis, C. B. Stewart Sur., 1,449 ft. from W line, 467 ft. from N line of tract .....Drlg. sandy shale 2,973 ft.
Tidal Oil Co.'s No. 6 Lewis, C. B. Stewart Sur., 2,593 ft. from N line, 467 ft. from W line of tract .....Drlg. sticky shale 2,265 ft.
Tidal Oil Co.'s No. 7 Lewis, C. B. Stewart Sur., 2,028 ft. from N line, 467 ft. from E line of tract .....Drlg. shale and sand 1,475 ft.
Tidal Oil Co.'s No. 8 Lewis, C. B. Stewart Sur., 2,223 ft. from N line, 2,333 ft. from W line of tract .....Drlg. shale and sand 2,053 ft.
Tidal Oil Co.'s No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 380 ft. from E line, 577 ft. from S line of lease .....Spudded.
Tidal Oil Co.'s No. 2 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 386 ft. from E line, 467 ft. from N line of lease .....Derrick.
Tidal Oil Co.-Republic Prod. Co.'s No. 3 South Tex. Dev. Co., T.&N.O. Sur. 15, 380 ft. from E line, 466 ft. from N line of lease .....Location.
Violet & Griffith's No. 5 Mrs. Fannie Hooper, M. DeMoss Sur., E offset Humble's No. 1 Ploeffliin, C of tract...Drlg. shale 4,916 ft.
Violet & Griffith's No. 7 Mrs. Fannie Hooper, M. DeMoss Sur., C of tract, E offset Showers & Moncrief's No. 1 Dunn .....Oil sand 5,100 ft; cmtd. 7-in. csg. 5,069 ft.

FORT NECHES—ORANGE COUNTY

The Texas Co.'s No. 4 Stark, 675 ft. E, 340 ft. N of SW cor. Marshall Beauchamp Sur. .....Derrick.

CLAY CREEK—WASHINGTON COUNTY

Clay Creek Oil Co.'s No. 2 Bimage, J. F. Perry Sur., 1,600 ft. from S line, 150 ft. from E line of survey..No report.
Sun Oil Co.'s No. 1 A. Schulte, J. F. Perry Sur., 304 ft. from NE line, 300 ft. from SE line of tract .....Drlg. shale 1,649 ft.

SOUTH LOUISIANA FIELDS

JENNINGS—ACADIA PARISH

Olympic Oil Co.'s No. 1 Luckett, 1,150 ft. S, 75 ft. W of NE cor. Sec. 42-9s-2w .....Standing 1,773 ft.
Phillips & Artigue's No. 2 Cruse (W.O.), 85 ft. from E line, 60 ft. from N line of tract in Sec. 47-9s-2w....Standing 1,862 ft.
Yount Lee Oil Co.'s No. 11 Housierre-Latrielle, 1,010 ft. N, 5,050 ft. S of SW cor. Sec. 47-9s-2w .....Drlg. shale 7,726 ft.

DARROW—ASCENSION PARISH

Rio Bravo Oil Co.'s No. 2 Community, Sec. 31-10s-2e, 1,760 ft. S, 600 ft. W of No. 1 .....Rig.
Rio Bravo Oil Co.'s No. 1 Gumbel, 4,000 ft. W, 250 ft. S of NE cor. of S. Gumbel & Co. tract, Sec. 33-10s-2e..Drlg. sticky shale 3,605 ft.

SORRENTO—ASCENSION PARISH

Union Sulphur Co.'s No. 22 United Land Co. 5,760 ft. N, 1,360 ft. W of SE cor. Sec. 15-10s-4e .....Salt 4,908-29 ft; sidetracking in shale 3,850 ft.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Shell Pet. Corp.'s No. 3 Fontenot, Sec. 7-9s-6w, direct E offset Magnolia's No. 2 Waite .....Drlg. shale 5,063 ft.

EDGERLY—CALCASIEU PARISH

The Texas Co.'s No. 1 Miller Est., 150 ft. E, 150 ft. S of NW cor. NE Sec. 27-9s-11w .....Heaving shale 6,795 ft; abd.

LOCKPORT—CALCASIEU PARISH

Lockport Oil Co.'s No. 1 Phoenix .....D.S. stuck 1,200 ft; standing.
Magnolia Pet. Co.'s No. 10 Bordages, Sec. 8-10s-9w, 1,001 ft. E, 338 ft. N of SW cor. of lease .....Drlg. shale 2,620 ft.
Magnolia Pet. Co.'s No. 6-A Farquahar, 1,020 ft. E, 150 ft. N of center of Sec. 8-10s-9w .....Drlg. sandy shale 6,020 ft.
Union Sulphur Co.'s No. 4 Martha Moss, Sec. 8-10s-9w.. Drlg. sand and shale 4,868 ft.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 770 fee, 292 ft. S, 1,243 ft. W of center Section 29-9s-10w .....Salt 5,622-5,981 ft.
Union Sulphur Co.'s No. 773 fee, Sec. 29-9s-10w .....Sand 3,640 ft.
Union Sulphur Co.'s No. 776 fee, 125 ft. S, 1,490 ft. W of center Sec. 29-9s-10w .....Drlg. hard lime 3,200 ft.

VINTON—CALCASIEU PARISH

Marrs McLean's No. 14 Gray, Sec. 33-10s-12w, 88 ft. W, 30 ft. S of No. 4 .....Comp. pumping 6 bbls. daily 3,958 ft.
Wilson-Broach's No. 9 Wilson, Sec. 33-10s-12w, 200 ft. N of No. 8 and 28 ft. E of W line of Strip 7 .....Sand 3,451-68 ft; cmtd. 6⅝-in. csg. 3,434 ft.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 3 Alliance Trust Co., 699 ft. from N line, 1,460 ft. from W line of Sec. 34-11s-1w .....T.D. 4,717 ft; D.S. stuck.
Pure Oil Co.'s No. 2 Mulvey, Sec. 34-11s-1w, 1,515 ft. from N line, 1,150 ft. from E line of tract .....Drlg. hard sandy lime 3,645 ft.

HACKBERRY—CAMERON PARISH

Wilfred Lahaye's No. 1 Olevia, Sec. 36-12s-10w, in 2-ac. tract .....Spudded and S.D.
Jim Oil Co.'s No. 11 Irwin, Sec. 13-12s-10w, 500 ft. N, 78 ft. W of No. 6 .....Drlg. 350 ft.
Lackawanna Oil Co.'s No. 1 Ellender, 320 ft. S, 150 ft. E of NW cor. SE SE Sec. 21-12s-10w .....Derrick.
Massert & Cruse's No. 1 J. B. Duhon, 656 ft. S, 325 ft. E of NW cor. Sec. 26-12s-10w .....Derrick.
The Texas Co.'s No. 10-B State, 1,000 ft. E, 200 ft. N of NE cor. Sec. 13-12s-10w .....Location.
The Texas Co.'s No. 11-B State, 1,000 ft. E, 600 ft. N of NE cor. Sec. 13-12s-10w .....Location.
Union Sulphur Co.'s No. 2 Gulf Land-Pure lease, 1,953 ft. N, 200 ft. W of SE cor. Sec. 11-12s-10w .....Drlg. sand 7,796 ft.
Yount Lee Oil Co.'s No. 12 School Land, Sec. 15-12s-10w, 200 ft. S of No. 11 .....Drlg. hard sand 3,015 ft.

PORT BARRE—ST. LANDRY PARISH

Port Barre Oil Co.'s No. 1 Sibille (W.O.), Sec. 20-6n-5e, 600 ft. S, 124 ft. E of NW cor. of 30-ac. tract....T.D. 3,566 ft; sidetracking 3,306 ft.
The Texas Co.'s No. 13 Botney Bay, Sec. 4-6s-5e, 185 ft. W of E line of lease and direct offset Gulf's No. 2 Wilson-Cockran .....Rigging up.

CHOCTAW—IBERVILLE PARISH

Standard Oil Co.'s No. 3 Gay, 520 ft. S, 200 ft. E of center Sec. 52-9s-11e .....Drlg. 1,500 ft.

WHITE CASTLE—IBERVILLE PARISH

Shell Pet. Corp.'s No. 6 Wilbert, Sec. 9-11s-12e, 200 ft. out from No. 5 .....Tested S.W. 5,318 ft; plugged to 5,327 ft.

CAMERON MEADOWS—CAMERON PARISH

Magnolia Pet. Co.'s No. 3 Cameron Meadows, 3,620 ft. S, 1,900 ft. W of NE cor. Sec. 21-14s-13w.....No report.

LEESVILLE—LA FOURCHE PARISH

The Texas Co.'s No. 6 L.L.&E., Sec. 26-21s-22e..... No report.

STARKS—CALCASIEU PARISH

Emerson & Stark's No. 2 Industrial, 400 ft. S of No. 1, in SE cor. NE NW Sec. 30-9s-12w.....No report.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 11 Yount Lee, Sec. 12-13s-8w, 800 ft. S 66 deg. 42 min. from No. 9 .....Hard sandy lime 4,765 ft; cmtd. 13⅜-in. csg. on bottom.

TEXAS

MISCELLANEOUS WILDCATS

AUSTIN COUNTY

Bunte, Inc.'s No. 1 Dittert, M. N, Allen Sur., 200 ft. SW, 300 ft. NW from W cor. of Henry Vornkahl 16 acres .....Rig.
Great Southern Oil Co.'s No. 1 Schevojas, 329 ft. N, 78 deg. E of N cor. B. Dottery Sur. .....S.D. 2,848 ft.
Sun Oil Co.'s No. 1 R. W. Theuman, Juan DeLeon Sur., 900 ft. S of N line, 924 ft. E of W line of 125-ac. lease .....Drlg. sandy shale 3,236 ft.
Tibbett et al's No. 1 Heidman, 4,320 ft. SW along NW line from most northerly corner of A. Larrison Sur., thence 405 ft. NW at right angles .....Derrick.

BRAZORIA COUNTY

John Deering's No. 1 C. W. Chapman, 924 ft. from S line, 104 ft. from E line of Lot 2, Andrew Robinson Sur. .....Sand rock 5,788 ft; standing.
Gulf Prod. Co.'s No. 1 American National, E. R. Bradley Sur. No. 12, 7,594 ft. E, 900 ft. N of SW cor. of 1,472-ac. tract .....Dry and abd. 6,691 ft.
Gulf Prod. Co.'s No. 1-B H. P. Lockwood, Wiley Martin Sur. No. 9, 3,024 varas S, 45 deg. W along SE line of Lockwood's 536-ac. tract from E cor., thence 241 varas NW at right angles from said line .....Drlg. shale 7,275 ft.
A. D. Parsons et al's No. 1 Hughes, 1,500 varas, NE from W cor. along NW line of A. L. D. Lewis Sur., 200 varas SE at right angles in Hughes' 320-ac. tract .....S.D. 4,255 ft.
Tri-fin Oil Co.'s No. 1 Moers, 1,635 ft. SW of Chocolate Bayou, 693 ft. SE of NW line of F. Moore Sur. .....Drlg. shale 3,072 ft.

BURLESON COUNTY

Ball & Knob's No. 1 Polansky, M. B. Lawrence Sur., 359 ft. from E line, 469 ft. from N line of 158-ac. tract .....No report.
Sampson O. & G. Co.'s No. 2 Duckworth & Gilley, F. Singleton Sur., 50 ft. SE of No. 1 .....No report.
J. E. Stubblefield et al's No. 1 Mitchell, A. T. Woolridge Sur., 81 ft. SW, 4,340 ft. SE of S cor. of Joseph Henson Sur. .....Gumbo 600 ft; standing.

CHAMBERS COUNTY

Weaver-Ray's No. 1 Fisher, John Tjams Sur., 210 ft. S of Rucker et al's No. 1 Fisher .....S.D. 2,400 ft.
Yount Lee Oil Co.'s No. 1 Plummer, H.&T.C. Sur. No. 28, 2,340 ft. from N line, 2,640 ft. from W line of section .....Drlg. shale 6,815 ft.

COLORADO COUNTY

Danciger O. & G. Co. and I. E. Hults' No. 1 C. L. Raver, B.B.B.&C. Sur., Sec. 1, 990 ft. out of SW cor. of 477-ac. tract .....Derrick.
Humble O. & R. Co.'s No. 1 Cora Lindley, I.&G.N. Sur., Sec. 42, 466 ft. out of NE cor of tract .....Derrick.
Pilot Oil Co.'s No. 1 Tate, Cooke & DeWeese Sur., 150 ft. NE, 50 ft. NW of S cor. of survey .....S.D. 1,540 ft.

FORT BEND COUNTY

Lowrie & Young's No. 1 Jackson Brown, Pliant Lake, Wm. Barrett & Abner Harris Sur., 152 ft. E, 158 ft. N out of SE cor. Humble 182-ac. Brown lease in D. Hale 548-ac. tract .....Shale and lime 4,335 ft; S.D. for fuel.
Lynch et al's No. 1 Kneitz, 690 ft. from NW line, 350 ft. from SW line of Sec. 43, H.&T.C. Sur. .....S.D. for repairs 672 ft.
Naylor & DeCosta's No. 1 Naylor, 6,350 ft. N, 55 deg. E from SW cor. 653-ac. tract in Christman Sur. ....T.D. 7,014 ft; standing.
Reisinger et al's No. 1 Joe Sitter, Long Point, T. J. Bell Sur., 150 ft. SW, 150 ft. SE of N cor. of 80-ac. tract .....Abd. 2,630 ft.

GALVESTON COUNTY

Humble O. & R. Co.'s No. 1 Rosenkrans, Green's Bayou, center N½ of Lot 10, Sarah White Sur. .....Heaving shale 7,119 ft.

GRIMES COUNTY

Barnett et al's No. 1 Dodd, Timothy Jones Sur. .....Standing 2,689 ft.
W. J. Brightwell's No. 1 Combs, Samuel Beauman Sur., 850 ft. from S line, 622 ft. E of extreme W line of 276-ac. tract .....Standing 5,250 ft.
Terrell & Clay's No. 1 D. M. Howard, T. Jones Sur., 450 ft. from E line, 750 ft. from S line of lease .....Location.

HARDIN COUNTY

Joe E. Proctor's No. 1 Russell & Teague, 3,650 ft. E, 2,777 ft. N of NW cor. of Wm. W. Young Sur. .....T.D. 2,685 ft; hole heaved in.
Robichaux et al's No. 1 Kirby Lbr. Co., 4,167 ft. W, 2,500 ft. N of SE cor. of Ben Hawkins Sur. .....S.D. 3,900 ft.

HARRIS COUNTY

T. V. Buckholve & Sons' No. 1 Miller, Arthur McCormick Sur. .....S.D. 1,310 ft.
Cherry & Pritchard's No. 1 Dr. Griffith, S. Bell Sur., 582 ft. from E line, 60 ft. from N line of 250-ac. tract .....T.D. 756 ft; cmtd. 10-in. 650 ft.
John Deering et al's No. 2 Warren, T. Snell Sur., 100 ft. SW of No. 1 .....Gumbo 604 ft; cmtd. 10-in. csg. 240 ft.

JASPER COUNTY

Smitherman, Neilson & Noble's No. 1 Cameron, Wm. Jones Sur., 400 ft. S 45 deg. W of SW cor. of J. W. Allen 300-ac. tract .....Cmtd. surface csg. 250 ft; standing.

JEFFERSON COUNTY

Carroll & Miller's No. 1 C. A. Mashman, W. B. Dyches Sur., 462 ft. W of highway and 105 ft. S of NE line of 13-ac. tract .....Derrick.
Coastal Oil Co.'s No. 1 Young, 250 ft. from E line, 160 ft. from S line of 40-ac. tract, in Blk. F-5, Lot 6, Joseph Grigsby Sur. .....Drlg. shale 3,556 ft.
Jack Schultz's No. 2 Todd, Cheek, 1,800 ft. S of No. 1 and 130 ft. E of W line of Wm. Carr Sur. .....Shale 7,000 ft; S.D. to change rigs.

LIBERTY COUNTY

Leon Brisley's No. 1 J. M. Neal, Edward Tanner Sur., 1,800 ft. E, 1,300 ft. N of most westerly NW cor. of Margaret Evans Sur. .....S.D. 2,768 ft.
Mayes et al's No. 1 Dunman, J. C. Martin Sur., 1,111 ft. from S line of survey and 3,860 ft. W of Trinity River .....Spudded and S.D.
James Papadakis' No. 1 Eicke, Reason Green Sur., 300 ft. from W line of 300-ac. tract in center N and S...Spudded and S.D.

MATAGORDA COUNTY

Cockburn Oil Corp.'s No. 5 Hawkins, Shepherds Mott, 2,200 ft. SE, 1,800 ft. NE of W cor. Daniel McCarthy Sur. .....Drlg. sandy shale 4,610 ft.
Dr. Griffith et al's No. 3 Baer, Big Hill, 5,000 ft. N, 3,000 ft. E from SW cor. of Seth Ingram Sur. .....Standing 2,720 ft.
Humble O. & R. Co.'s No. 1 Pierce Est., Isaac Foster Sur., 330 ft. from N line, 330 ft. from E line of tract .....Drlg. shale and lime 5,210 ft.
Rugeley et al's No. 1 Cleveland, E. Hall Sur., 450 ft. E of Cottonwood Creek and 200 ft. N of S line of 60-acre tract .....No report.
R. L. Sprinkle et al's No. 1 Turner, 4,900 ft. from NE line, 3,800 ft. from SE line of M. Cummings Sur. ....Rig.
United North & South Dev. Co.'s No. 1 St. L. & B. M. "Y," 200 ft. S of main line of RR and 200 ft. NE of SW fork of "Y" in townsite, J. C. Keller Sur. ..Drlg. shale and lime 4,905 ft.

MONTGOMERY COUNTY

A. H. Parsons et al's No. 2 Drought, Kronknite Sur., 3,000 ft. N, 100 ft. E of NW cor. of A. B. Hill 46½ acres .....S.D. 3,000 ft.

Rheubotham et al's No. 1 A. H. Sails, Wm. Barker Sur., 390 ft. from E line, 400 ft. from N line of W 36 acres of Sails tract ..... No report.
R. L. Sprinkle's No. 1 Rohlfs, 660 ft. out of SW cor. of H. Proneus Sur. ..... Location.
Sutton-Hawkins' No. 1 Foster, Hosea de la Garza Sur., 3,333 ft. N, 1,320 ft. E of NE cor. of W. J. Johnson 160-ac. tract ..... Standing 3,852 ft.

NEWTON COUNTY

L. A. James et al's No. 1 Price, T.&N.O. Sur., 1,000 ft. from W line, 500 ft. from N line of tract ..... S.D. 2,195 ft.

POLK COUNTY

Anderson et al's No. 1 Duke, Peter J. Manard Sur., 330 ft. out of NW cor. of 335-ac. tract ..... S.D. 3,948 ft.
Koch & Stevens' No. 1 Ruth Lawrence, Castalilan Sur., 300 ft. from W line, 790 ft. from S line of 54-ac. tract ..... S.D. 2,800 ft.
Tony & Purdy's No. 1 Martha Roberts, Joaquin T. De Rumayor Sur. ..... S.D. 4,235 ft.
Dick Schwabb and Shell Pet. Corp.'s No. 2 Davis & Holmes, A. Viesca Sur., 495 ft. N, 376 ft. W of NE cor. of J. Duff 35 acres ..... T.D. 4,438 ft; plugging back into csg. (6⅝-in. csg. at 4,338 ft.) to sidetrack and redrill to sand.

REFUGIO COUNTY

Gulf Prod. Co.'s No. 2 J. O'Connor (W.O.), C.E.P.I.&M. Co. Sur. No. 40, 1,200 varas from S line, 1,500 varas from E line of tract ..... Drlg. shale 5,940 ft.
Gulf Prod. Co.'s No. 3 O'Connor, C.E.P.I.&M. Co. Sur., No. 133, 6,225 ft. SW along SE line from NE cor. of John O'Connor land, thence 2,639 ft. NW at right angles ..... Derrick.
Humble O. & R. Co.'s No. 2 O'Connor, Florentine Rice Sur., 13,747 ft. from S line at right angles, 3,412 ft. from E line at right angles of 5,545-ac. ranch ..... Drlg. shale 4,362 ft.

SAN JACINTO COUNTY

Weaver et al's No. 1 Delta Land & Timber Co., 1,400 ft. NE of SW line of James W. Robertson Sur., and 800 ft. at right angles ..... No report.

TRINITY COUNTY

C. M. Beckner's No. 1 Gibson, Wm. Beasley Sur., 600 ft. S along E line of survey and 150 ft. W at right angles ..... Fishing 1,189 ft.
South Gulf Oil Co.'s No. 1 Trinity Lbr. Co., 290 varas from N line, 650 varas from E line of Sec. 17, H.&T.C. Sur. ..... Location.

TYLER COUNTY

Republic Prod. Co. and Houston Oil Co.'s No. 1 Sam Jeffcoat, E. Thompson Sur., 467 ft. N and E from SW cor. of 100-ac. tract ..... Derrick.
Republic Prod. Co. and Houston Oil Co.'s No. 1 Kirby, E. Thompson Sur., 467 ft. N and E from NE cor. of Sam Jeffcoat 100 acres ..... Derrick.
Republic Prod. Co. and Houston Oil Co.'s No. 1 Sterne fee (W.O.), 8,284 ft. from W line and 484 ft. from N line of Adolphe Sterne Sur. ..... S.W. sand 5,619 ft; plugged to 4,589 ft.
Republic Prod. Co. and Houston Oil Co.'s No. 1 Kirby-McShane, 467 ft. S and W of most northerly NE cor., B.B.B.&C. Sur. No. 17 ..... Rig.

VICTORIA COUNTY

Gulf Prod. Co.'s No. 3 Keeran Ranch, Martin DeLeon Sur., 1,320 ft. NW of No. 1 ..... Coring sand 5,755 ft; D.S. test 5,692-5,704 ft; recovered 360 ft. oil in 3 min.
Slick-Seeligson Corp.'s No. 2 McFaddin (D.D.), J. Varian Sur., 1,100 ft. NE of SW line, 635 ft. E of railroad.. T.D. 6,810 ft; plugged to 4,800 ft; drilled to 6,454 ft; D.S. stuck.
The Texas Co.'s No. 5 McFaddin, 1,300 ft. westerly, 300 ft. northerly at right angles from SE cor. of J. A. McFaddin 98-ac. tract ..... Drlg. sand and shale 4,021 ft.
Quintana Oil Co.'s No. 1 McCormic, 500 ft. from SW line, 500 ft. from NW line of S.A.&M.G. Sur., Sec. 2, in most westerly NW cor. ..... Rig.
Union Oil Co.'s No. 2 Keeran, Martin DeLeon Sur., 500 ft. E of E line of Gulf lease and 1,900 ft. N of railroad ..... Tested S.W. 5,929-34 ft.

WALLER COUNTY

Birdwell et al's No. 1 Robertson, John Baker Sur., 1,625 ft. from S line, 450 ft. from W line of 64-ac. tract ..... Derrick.
Hobson et al's No. 1 Joe W. Harris, 3,000 ft. from E line, 5,000 ft. from N line of H.&T.C. Sur. in Harris 1,475-ac. lease in Justo Liendo Sur. ..... Standing 4,954 ft.

WASHINGTON COUNTY

Yequa Oil Co.'s No. 18 Pomacal, S. M. Williams Sur., 1,283 ft. from W cor. of Shuls 44-ac. tract, thence 133 ft. NW at right angles ..... T.D. 1,515 ft.

WHARTON COUNTY

Cullen & West's No. 1 Hawes, G. W. Singleton Sur., 660 ft. NE, 330 ft. SE of W cor. of Hawes, 145-ac. tract ..... Drlg. brittle shale 6,523 ft.
Cullen & West's No. 1 J. D. Hudgins, Alexander Jackson Sur., 330 ft. out of S or SE cor. of J. D. Hudgins' 319-ac. tract ..... T.D. 5,726 ft; sidetracked 1,622-1,890 ft; abd.
Dayvault-Tyler-Gardner's No. 1 Dayvault, Wm. Kincheloe Sur., 200 ft. SW, 600 ft. SE of N cor. of 298-ac. tract ..... Drlg. shale 3,126 ft.
Pure Oil Co.'s No. 1 Stewart, 2,419 ft. NW, 1,650 ft. NE of S cor. of Sec. 35, Morris & Cummings Sur. ..... Drlg. gumbo 1,227 ft.
Smith & Daniels' No. 1 Mitchell, H.&T.C. Sur. No. 8, 320 ft. from NE line of NE 80-ac. tract in center of tract NW and SE ..... Shale 6,442 ft; running 7-in. csg. to 6,280 ft.
Steed Prod. Co.'s No. 1 Tucker, 310 ft. W, 50 ft. N of NE cor. of S½ of SW¼ of Sec. 58, E.T.R.R. Sur. .... Cmtd. 10-in. csg 710 ft.; drlg. plug.

SOUTH LOUISIANA

BEAUREGARD PARISH

DeRidder Dev. Co.'s No. 1 McMahon, 200 ft. W, 156 ft. S of NE cor. of NW Sec. 33-3s-9w ..... Standing 1,386 ft.

CALCASIEU PARISH

Cannon & Hughes' No. 1 J. S. Reed, Sec. 13-10s-12w..... Derrick.
I. R. Irvine et al's No. 1 A. D. Mimms, 741 ft. N, 741 ft. W of SE cor. SE NE Sec. 20-9s-7w ..... No report.

JEFFERSON DAVIS PARISH

R. D. Finly's No. 1 Clarphy Lognion, SW NW Sec. 22-10n-4w ..... Cmtd. surface csg. 510 ft.
Humble O. & R. Co.'s No. 1 Devilbiss, 1,650 ft. S, 250 ft. W of NE cor. of Sec. 14-9s-4w ..... Rig.

LA FOURCHE PARISH

Lechner & Hubbard's No. 1 Lollain, 150 ft. out of SE cor. NW NW Sec. 32-18s-22e ..... Spudded.

TERREBONNE PARISH

The Texas Co.'s No. 7 Caillou Island, 200 ft. S, 200 ft. W of NE cor. Sec. 19-23s-20e ..... Driving piling.
The Texas Co.'s No. 17 State-Lake Barre, 1,476 ft. W, 626 ft. S of NW cor. Sec. 30-21s-20e ..... T.D. 4,436 ft. in salt; sidetracking 1,415 ft.
The Texas Co.'s No. 4 Lake Barre-L.L.&E., 2,303 ft. S, 2,075 ft. W of NW cor. Sec. 30-21s-20e in Sec. 36-21s-19e ..... Drlg. shale and lime 2,550 ft.

VERMILLION PARISH

Shell Pet. Corp.'s No. 1 Herbert, 2,310 ft. W, 330 ft. N of SE cor. Sec. 19-15s-1e ..... Drlg. sand and gravel 721 ft.

VERNON PARISH

Minerals Division Llano Co.'s No. 1 Llano Del Rio, 543 ft. E, 500 ft. S of NW cor. NW Sec. 34-2n-9w ..... No report.

Wildcat Operations in Louisiana-Arkansas

(Continued from Page 46)

Honeycut O. & G. Co.'s No. 1 Porter, 423 ft. S, 414 ft. W, NE cor. NW NE Sec. 26-12-13 ..... Waiting on csg. 2,997 ft.
S. A. Guy's No. 1 Dowling, 469 ft. E, 382 ft. S, NW cor. NE Sec. 31-14-14 ..... D.S. test 3,075 ft.; dry; W.O.
Mrs. A. L. Ibach, tr.'s No. 1 Rambin, 350 ft. S and E, NW cor. NE NE Sec. 32-11-11 ..... S.D. fuel 710 ft.
E. T. Oakes' No. 1 R. H. Bryant et al, 300 ft. N and W, SE cor. NE NW Sec. 30-13-15 ..... Cored oolithic lime showing oil 4,240-60 ft.
DeSoto Dev. Co.'s No. 1 Nickey, Sec. 7-12-12 ..... Partly rigged up and S. D.
Geo. L. Pace's No. 1 John Cole, 200 ft. N, 150 ft. E, SW cor. SE NE Sec. 11-11-11 ..... Rig up.
G. C. Smith et al's No. 1 Wollums, 330 ft. N and W, SE cor. Sec. 30-13-12 ..... S.D. chalk 1,520 ft.
E. J. Stanberry's No. 1 Naborton O. & G. Co., Sec. 32-13-11 ..... Drlg. chalk 1,030 ft.
State Drlg. & Prod. Co.'s No. 1 Wemple, 330 ft. N and E, SW cor. NW SW Sec. 14-12-11 ..... S.D. chalk 1,205 ft.
Walters-Nicholson, tr.'s No. 1 Jim Guy, Sec. 3-11-13 ..... Swabbing tubing; show oil, water and gas 2,765 ft.
Warren & Craig's No. 1 J. A. Wagner, 150 ft. S and W from C, Sec. 5-12-14 ..... Hole clean; S.D. 750 ft.; W.O.
Jack Whitson's No. 1 Sanders, 330 ft. N and E, SW cor. Sec. 19-11-13 ..... Tested dry; top Blossom 2,625 ft.; S.D. 2,735 ft.

GRANT PARISH

A. W. Phillips, tr.'s No. 1 Cameron, 300 ft. N, 200 ft. E, SW cor. SW NW Sec. 26-7-3w ..... Cmtd. 10-in. 60 ft; S.D.
O. Robichaux's No. 1 T. M. Bradford, 1,870 ft. E, 314 ft. S, NW cor. Sec. 16-9n-1e ..... Derrick.
H. H. Temple's No. 1 Edenborn Est., 2,640 ft. E, 550 ft. S, NW cor. Sec. 20-7-3w ..... Location.

MOREHOUSE PARISH

Feazel & Kaill's No. 1 Davenport, Sec. 28-21-4e ..... S.D. 2,510 ft.
H. W. Snowden's No. 1 Meyers, 330 ft. S and E, SW cor. NE NE Sec. 15-22-7e ..... S.D. 30 ft.

NATCHITOCHES PARISH

Allender & Rasmussen's No. 1 Cane River, 330 ft. N and W, SE cor. Sec. 61-6n-5w ..... S.D. 100 ft.
W. M. Coates' No. 1 Ross Olive, Sec. 10-9-10, 660 ft. S and E from cen. of Sec. ..... S.D. fuel, 2,150 ft.
J. B. Oil Co.'s No. 1 Hankins et al, Sec. 67-10-7 ..... S.D. 670 ft.
Natchitoches Pet. Co.'s No. 1 Edenbarn, 2,240 ft. W, 1,320 ft. S, NE cor. Sec. 4-11-6w ..... S.D. 2,700 ft.
Texana Oil Co.'s No. 1 Clark-Morris Lbr. Co., 978 ft. N, 560 ft. E, C, Sec. 33-5-6 ..... Set 6⅝-in. 3,300 ft.; tested S.W. 3,475 ft.

OUACHITA PARISH

Inabnet & Pipe's No. 1 Van Horn, 1,980 ft. N, 660 ft. E. C Sec. 14-18-5 ..... Rig up; W.O.
Milhivan Gas Corp.'s No. 1 W. Va. L. & T. Co., 1,320 ft. E, 1,320 ft. N, center Sec. 10-17-5e ..... Location.
Monroe Oil & Royalties Co.'s No. 1 Thieler, 150 ft. N and E, SW cor. SE NW Sec. 34-18-2e ..... S.D. 2,575 ft.

RAPIDES PARISH

Evers & Collingsworth's (was A. G. Beck et al) No. 1 Hickman-Simmons Lbr. Co., 330 ft. S, 330 ft. W, NE cor. SW SW Sec. 32-4-1e ..... Location.
Pet. Industries, Inc.'s No. 1 Lee Lbr. Co., 330 ft. N, 300 ft. W, SE cor. NW SE Sec. 13-5n-2e ..... Derrick.

RED RIVER PARISH

Edward & Clay's No. 1 Delta Pecan Co., 1,600 ft. N, 450 ft. E, SW cor. Sec. 27-13-11 ..... S.D. 1,600 ft.
H. M. Jones' No. 1 A. N. Sample, 330 ft. S, 330 ft. E, NW cor. Sec. 10-14-11 ..... Location.
G. T. Shaw et al's No. 1 Wilkinson, 300 ft. N, 460 ft. W, SE cor. NE SE Sec. 4-13-10 ..... S.D. 1,150 ft.

RICHLAND PARISH

Humble Prod. Co.'s No. 1 fee, SW NW Sec. 11-14-6 ..... Location.

SABINE PARISH

Coates Pet. Co.'s No. 3 Stille, 330 ft. N and E, SW cor. Sec. 35-8-13 ..... Location.
Craft & Primm's No. 1 C. Alford, 720 ft. S, 460 ft. E, NW cor. SW NW Sec. 18-7-10 ..... Began drlg. Dec. 14; cmtd. 10-in. 42 ft.
Flinchbaugh & Myers' No. 1 Aaron, 250 ft. S and E, NW cor. Sec. 32-9-13 ..... Rigged up on second hole; W.O.
Frank Foster, Inc.'s No. 1 C. J. Gaddis, 200 ft. S and W, NE cor. Sec. 20-9-11 ..... Rigging up.
R. L. Gay, tr.'s No. 1-A Long Bell Lbr. Co., 430 ft. S, 200 ft. W, NE cor. NW NW Sec. 19-8-13 ..... S.D.; shale and lime 6,380 ft.
R. T. Henderson's No. 1 Sistrunk, 450 ft. N, 150 ft. W, C, Sec. 9-9-12 ..... Arranging to set 6-in. 1,617 ft.
Helis et al's No. 1 Sabine State Bank, 350 ft. N and W, SE cor. SW SW Sec. 28-8-11 ..... S.D. 1,700 ft.
Ab Jones' No. 1 Garcia, 200 ft. S and W, NE cor. NW SE Sec. 4-7-13 ..... T.A. 2,070 ft.
G. E. Jordan's No. 1 Dew, 330 ft. N, 340 ft. E, SW cor. SW SE Sec. 34-8-11 ..... Drlg. 1,400 ft.
Geo. LeGrand's No. 1 McGough, 300 ft. S, 300 ft. E, NW cor. SW NW Sec. 2-8-10 ..... Arranging test 2,410 ft.
C. D. Loe, tr.'s No. 1 Whitney, 330 ft. N and W, SE cor. NW NE Sec. 12-9-14 ..... Top marl 1,548 ft; S.D. fuel 1,715 ft.
Ben Merritt's No. 1 Lucina, 400 ft. N, 378 ft. E, SW cor. SW NE Sec. 4-5-12 ..... Derrick.
C. D. Neff, tr.'s No. 1 Snell, Sec. 9-7-11, 350 ft. N, 660 ft. W, SE cor. Sec. ..... W.O.S.R. 2,509 ft.
H. W. Perritt's No. 3 Brown Lbr. Co., 510 ft. S, 455 ft. W, NE cor. NW NE Sec. 31-8-10 ..... S.D. 2,270 ft.
Roy Raines et al's No. 1 Beard, 720 ft. E, 700 ft. N, SW cor. SW SE Sec. 8-8-10 ..... Set 10-in. 41 ft.; S.D. 250 ft.
Reeves & McNeely's No. 1 Ponder, 330 ft. N and W from C, Sec. 15-7-11 ..... Began drlg. Nov. 7; cmtd. 10-in. 21 ft.
Thornton et al's No. 1 S. S. Martinez, 355 ft. S, 330 ft. W, NE cor. SE NE Sec. 4-7-13 ..... S.D. 2,043 ft.
Otis A. Roberts' No. 1 Sabine Lbr. Co., 224 ft. S, 481 ft. W, NE cor. SW NE Sec. 5-7-13 ..... S.D.; W.O. 2,500 ft.
Roberts & Sledge's No. 1 La. Long Leaf Lbr. Co., 290 ft. N, 465 ft. E, SW cor. NE SE Sec. 29-8-10 ..... Derrick pa'terns.
Roberts & Sledge's No. 2 Sabine Lbr. Co., 303 ft. W, 726 ft. N, SE cor. SE SW Sec. 5-7-13 ..... W.O.S.R. 2,480 ft.
Reshko & LaBauve's No. 1 Maines, 427 ft. E, 114 ft. N, SW cor. SE SE Sec. 35-8-11 ..... Drlg. 1,405 ft.

CONVERSE DISTRICT

Alford & Cleary's No. 1 Jackson, 330 ft. N and E, SW cor. SE NW Sec. 10-9-13 ..... Location.
Alford & Cleary's No. 1 Patrick, 330 ft. S and W, NE cor. SW NE Sec. 11-9-13 ..... Location.
Cloud & Bolin's No. 1 Bowman-Hicks, SE cor. NE NE Sec. 24-9-13 ..... Cored sand and marl 1,724 ft.; bailed down 1,200 ft.; no show; dry 2,200 ft; dry 2,210 ft; S.D.
Evans Bros.' No. 1 Crawford, 300 ft. S, 300 ft. W NE cor. SE SE, Sec. 20-9-13 ..... Rigging up.
H. P. Key's No. 1 T. J. Paul, 120 ft. S, 110 ft. W, NE cor. Blk. 25, Converse townsite in Sec. 10-9-13 ..... Location.
Gibson & Johnson, Inc.'s No. 2 Frost Lbr., 330 ft. S and W, NE cor. NW NE Sec. 15-9-13 ..... Bailing to test.
H. C. Lemenger's No. 1 Bowman-Hicks, 330 ft. S, 330 ft. E, NW cor. Sec. 13-9-13 ..... Derrick.
Lee & Burnett's No. 1 Burckett, 330 ft. N and W, SE cor. NW SW Sec. 10-9-13 ..... Tested dry 1,795 ft; W.O.

Hy Rockmill's No. 1 Cassell, 330 ft. S, 330 ft. W, NE cor. Sec. 35-9-14 ..... Derrick.
Rockmill et al's No. 1 Bowman-Hicks, 330 ft. S and W, NE cor. NW Sec. 26-9-14 ..... S.D. 1,100 ft.
Nick Barbare's No. 1 Ryals, 330 ft. S and E, NW cor. Sec. 27-9-13 ..... Cmtd. 8-in. 1,515 ft.; top sand 1,535 ft; tested dry; W.O.; T.D. 1,555 ft.
Rockmill et al's No. 1 Patrick, 330 ft. S, 330 ft. E, NW cor. NE NW Sec. 31-9-13 ..... Rig up.
E. M. Self's No. 1 Paul, 330 ft. N and W, SE cor. NE SW Sec. 9-9-13 ..... Derrick.
Service Drlg. & Royalty Corp.'s No. 1 Whitney Corp., 330 ft. N and W, SE cor. Sec. 32-10-13 ..... Top marl 1,551 ft; S.D. fuel, 1,600 ft.
Ben Youngblood et al's No. 1 Burket, 330 ft. S and W, NE cor. NE NW Sec. 10-9-13 ..... Derrick.
Roshko & Labarre's No. 1 Maines, 427 ft. E, 114 ft. N, SW cor. SE NE Sec. 35-8-11 ..... Fishing for bit; T.D. 1,072 ft.
Sabine Prod. Co.'s No. 1 Whiting Corp., 150 ft. N and E, SW cor. Sec. 4-9-13 ..... Top marl 1,470 ft. and cmtd. 6-in.; drlg. 1,730 ft.; tested S.W., small show gas 2,184 ft; S.D. 2,207 ft.
Skidmore & Mise's No. 1 Stoker, 440 ft. N, 225 ft. E, SW cor. SE NW Sec. 32-8-10 ..... S.D. 1,450 ft.
C. W. Smith et al's No. 1 Pattison, 330 ft. S and E, NW cor. SE NW Sec. 32-10-11 ..... Washing to bottom 3,200 ft.
Southland Drlg. Co.'s No. 1 Frost Lbr. Co., 330 ft. N and W, SE cor. NE NE Sec. 13-9-11 ..... S.D. fuel, 2,337 ft.
Triangle Drlg. Co.'s No. 1 La. Long Leaf Lbr. Co., 330 ft. N and W, SE cor. Sec. 11-6-11 ..... S.D. 4,013 ft.
W. M. Ungerman's No. 1 F. Cross, 53 ft. S, 146 ft. W, NE cor. SW SE Sec. 25-8-11 ..... Cmtd. 6-in. at 2,421 ft; drilled plug; S.D.

TENSAS PARISH

H. V. Schumacker's No. 1 Currey, 1,320 ft. S, 1,320 ft. E, NW cor. Sec. 39-11-13 ..... S.D. 3,645 ft.

UNION PARISH

E. S. Goens et al's No. 1 Frost Lbr. Co., 330 ft. S and E, NW cor. Sec. 17-23-2e ..... Began drlg. Oct. 5; cmtd. 10-in. 40 ft.
W. D. Wingfield et al's No. 1 Union Sawmill Co., 330 ft. N and E, SW cor. Sec. 27-22-1e ..... Began drlg. Nov. 13; cmtd. 10-in. 153 ft.
Wong Hing, tr.'s No. 1 Union Sawmill Co., 712 ft. W, 240 ft. N, SE cor. Sec. 15-22-1e ..... Top Wilcox 1,310 ft; top chalk 2,112 ft; S.D. in 4 ft. of sand; T.D. 2,430 ft.

VERNON PARISH

Earl Jones' No. 1 Willis, 350 ft. N 400 ft. E, SW cor. SE SE Sec. 32-3n-9w ..... Derrick.
Llano Co-operative Colony's No. 1 fee, NW NE Sec. 34-2n-9w ..... Top Cockfield 3,333 ft.; S.D. 3,629 ft.

WEBSTER PARISH

J. E. Bundy's No. 1 Walker, 300 ft. S, 300 ft. W, NE cor. SE NW Sec. 11-18-10 ..... Derrick pattern.
R. E. Silvey et al's No. 1 Drake est., C NE NE Sec. 14-19-10 ..... Drlg. 2,130 ft.

WEST CARROLL PARISH

Mamie S. McCurry's No. 1 Richard & Donnaw, 300 ft. N and E, SW cor. Sec. 13-19-9e ..... Rigging up.

WINN PARISH

P.V.T. Oil Co.'s No. 1 Southern Paper Co., 150 ft. S and W, NE cor. SW Sec. 28-13-3 ..... S.D. for 8-in. csg. 1,050 ft.

Arkansas

CLEBURNE COUNTY

Frank S. Craver et al's No. 2 Doniphan Lbr. Co., 700 ft. N, 200 ft. E, SW cor. SW Sec. 34-11-9 ..... Hard rock 3,360 ft.; S.D. 3,385 ft.

COLUMBIA COUNTY

Kendall Oil Co.'s No. 1 Fullenweider, 300 ft. S and E, NW cor. NE NE Sec. 13-17-22 ..... Cmtd. 6-in. 2,460 ft.; claim show oil and gas 2,520 ft.; bailed down 1,100 ft.; S.W. show.

JEFFERSON COUNTY

R. V. Harrell et al's No. 1 McGoughey NW cor. Sec. 22-7-10 ..... Location.

LAFAYETTE COUNTY

Chas. McDonald's No. 1 Allen, 400 ft. N and W, SE cor. SE SW Sec. 2-19-26 ..... Top Nacatoch 1,765 ft.; top chalk 2,247 ft; S.D. 2,765 ft.
Sam E. Wilson, Jr.'s No. 1 Smith, 330 ft. N and E, SW cor. NW SE Sec. 24-19-25 ..... Derrick.

LITTLE RIVER COUNTY

American Portland Cement Co.'s No. 1 fee, 150 ft. S and E, NW cor. SW NE Sec. 21-12-32 ..... Cmtd. 10-in. 100 ft; drlg. 820 ft.
M. E. Sanderson's No. 1 Hale, 1,200 ft. E, 800 ft. N, SW cor. SE SE Sec. 22-13-29 ..... S.D. 1,405 ft.

MILLER COUNTY

Roy Baker et al's No. 1 Olivet, 200 ft. S, 200 ft. E, NW cor. NE NE Sec. 4-16-26 ..... Rig up.
Capt. E. Byrd's No. 1 Miller Land & Lbr. Co., 1,320 ft. N and W, SE cor. Sec. 29-13-27 ..... Derrick.
Duluth-Ark. Oil Co.'s No. 1 Beck, 150 ft. N, 170 ft. E, SW cor. NW SW Sec. 34-15-26 ..... D.S. test dry; S.D. 2,935 ft.
Fitzwater et al's No. 1 C. J. Norsen, SW cor. SE SW Sec. 20-15-27 ..... S.D. 1,960 ft.
Fitzwater et al's No. 1 Fouke, 150 ft. S and W, NE cor. Sec. 11-17-27 ..... S.D. 105 ft.
Lee L. Foster's No. 1 Geo. Jones, 660 ft. N, 200 ft. W, SE cor. NW NW Sec. 29-16-26 ..... Rig up.
Hapgood et al's No. 1 Rose, SE cor. NE SE Sec. 7-16-26 .. Derrick pattern.
Roy Jenkins et al's No. 1 B. F. Smith, 330 ft. W, 330 ft. N, SE cor. SE SE Sec. 32-15-26 ..... Location.
Chas. B. Lens' No. 1 Dean, 125 ft. E, 200 ft. S, NW cor. SE Sec. 19-15s-25w ..... S.D. 3,500 ft.
C. H. Nelson et al's No. 1 Rose, 155 ft. S, 155 ft. W, NE cor. SE NW Sec. 4-16-26 ..... Derrick.
W. E. Noel et al's No. 1 Dickson hrs., 1,980 ft. W, 660 ft. S, NE cor. Sec. 11-20-27 ..... S.D.; W.O. 2,600 ft.
John C. Rogers' No. 1 Price, 330 ft. S, 400 ft. E NW cor. NW NW Sec. 17-16-25 ..... Rig up; S.D.
Sorrells & Tidwell's No. 1 Roy McCowan, 660 ft. S and E, NW cor. NW SE Sec. 22-15-28 ..... Set 10-in. 106 ft.; top Nacatoch 778 ft.; S. D.
C. E. Starr's No. 1 Barker, 330 ft. S, 150 ft. E, NW cor. NW SE Sec. 31-17-24 ..... Rigging up.
Steen Drlg. Co.'s (was Dennis & Cubage) No. 1 Head, 150 ft. E, 200 ft. N, SW cor. Sec. 20-15-26 ..... Claim sand 2,933-45 ft.; S.D. red beds 2,960 ft.
Stephens, Byers & Sartain's No. 1 Lowe, 600 ft. S, 200 ft. E, NW cor. SE NW Sec. 14-16-27 ..... Drlg. 1,450 ft.

OUACHITA COUNTY

McLeon et al's No. 1 L. D. Neely, Sec. 33-15-16, 200 ft. N and W, SE cor. NE SW ..... S.D. 150 ft.
Chas. Steele et al's No. 1 Anderson, 155 ft. S, 150 ft. E, from center Sec. 36-13-18 ..... T.D. 1,015 ft.

PRAIRIE COUNTY

Powell Creek O. & G. Co.'s No. 1 Kloss, NE SW Sec. 3-4n-6w ..... Partly rigged up and S.D.

UNION COUNTY

E. H. Cassity, tr.'s No. 1 F. L. Dumas, 200 ft. N, 300 ft. W, SE cor. SE SW Sec. 10-17-16 ..... Rigging up.
Cox et al's No. 1 Goodwin, 340 ft. S, 180 ft. W, NE cor. SW SW Sec. 3-16-16 ..... S.D. 140 ft.
Graves, Ferguson & Fuller's No. 1 Patterson, SW cor. NE NE Sec. 31-19-18 ..... Began drlg. Dec. 23; cmtd. 10-in. 103 ft.
Mamie McCurry et al's No. 1 Rowland, 200 ft. N and E, SW cor. Sec. 9-19-11 ..... Derrick.
Pigeon Hill Oil Co.'s No. 1 Union Sawmill, 150 ft. S, 100 ft. E, NW cor. NE NE Sec. 9-17-13 ..... Began drlg. Dec. 22; cmtd. 10-in. 26 ft.
J. K. Wadley et al's No. 1 Moore, Sec. 35-19-17 ..... Coring 2,240 ft.
Wilson & Chapman's No. 1-A D. Norman, 330 ft. S and E, NW cor. N½ NE SE Sec. 2-13-13 ..... S.D. 1,678 ft.

YELL COUNTY
(Cable tools)

Rainbow Oil & Gas Co.'s No. 1 Barrett SE cor. NE NE Sec. 16-5n-24 ..... Began drlg. Dec. 1; S.D. 100 ft.

East Texas

BOWIE COUNTY

Roy Anderson et al's No. 1 Breckenridge, center 465-ac. Breckenridge tract in Nancy Dycas Sur. ..... Reaming to bottom; arranging to core; T.D. 2,920 ft.
Tom Bell et al's No. 1 Mara, 1,300 ft. N, 2,160 ft. W, NE cor. 465-ac. tract in O. D. Watson Sur. ..... Cmtd. 10-in. 104 ft.
Lanford et al's No. 1 W. W. Whybark, 200 ft. S, 200 ft. W, SW cor. J. H. Dyer Sur. ..... S.D. 2,248 ft.

CASS COUNTY

Davis & Digg's (now Joiner Pet. Co.'s) No. 1 Roy Bryan, SW cor. Roy Bryan 88-ac. tr., Albert H. Latimer Sur. ..... S.D. 2,860 ft.
C. E. Murdock's No. 1 First National Bank, Evans Watson Sur. ..... S.D. 4,390 ft.

HARRISON COUNTY

Great Eastern Oil Co.'s No. 1 Rudd, Wm. Steele Sur. ..... 10-in. 96 ft; 8-in. 846 ft; small show gas 1,575 ft; S.D.
A. E. Roscoe et al's No. 1 Vever Towell, NW cor. H. T. Edwards' 340 acres in Louis Watkins Sur. ..... S.D. 2,200 ft.

MARION COUNTY

Baunoch Dev. Co.'s No. 1 Miller, 725 ft. N, 1,470 ft. E, SW cor. H. Fulgram Sur. (was Gist, Claunch & Dodson) ..... S.D. 4,530 ft.
Geo. Hindeman et al's No. 1 F. V. Lindsey, 2,500 ft. S most northerly N line, 3,555 ft. E most easterly W line, Alexander Albright Sur. ..... S.D. 2,380 ft.
Starling & Preston's No. 1 Henderson, R. Bennington Sur. H.R.S. ..... S.D; chalk 1,956 ft. (C.D.).

PANOLA COUNTY

Carter-Skidmore et al's No. 1 C. J. Wooten et al, 785 ft. N, 185 ft. E, SW cor. C. J. Wooten tract in P. Martin Sur. ..... Location.
Hampton Drlg. Co.'s No. 1 Lloyd Thompson, 330 ft. N, 330 ft. W, NW cor. C. Flanagan Sur. in Allen Leach Sur. ..... Location.
Root-Skinner's No. 1 Daniel, 600 ft. N and W lines, Mrs. Gerrell 100-ac. tr., SW cor. Isabel Hanks Sur. ..... S.D. for D.S. 740 ft.
J. L. Nelson et al's No. 1 J. Williams, 300 ft. S, 700 ft. W, NE cor. Williams' 67-ac. tr., James Hanks Sur. ..... S.D. 3,055 ft.

RED RIVER COUNTY

Ajo Oil Co.'s No. 1 Nichols & Daniels, center S 780 acres of 1,800-ac. tract in Hugh B. Shaw Sur. ..... Location.
Concord Oil Co.'s No. 1 Dilahunty, 500 ft. N, 200 ft. W, SE cor. Robt. Glass Sur. ..... S.D. 2,774 ft.
L. S. Priest et al's No. 1 R. W. Peck, 500 ft. W, 900 ft. N, most southerly SE cor. 220-ac. tract in Abram Wagley Sur. ..... S.D. 1,200 ft.

SHELBY COUNTY

J. H. Francis' (now Bob Chew et al's) No. 1 John Mims, Mary Smith Sur. ..... Tested dry 2,842 ft; S.D. 3,438 ft.
General Minerals Co.'s No. 2 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. D. S. Height Sur. ..... S.D.; repairing rig 3,693 ft.
Oil News' No. 1 Pickering, C. H. Patterson Sur. ..... Reaming 3,360 ft.
Neil Lease & Oil Well Synd.'s No. 1 W. P. Harvey, NW cor. W. P. Harvey 130 ac. in W. P. Harvey Sur. ..... Derrick pattern.
Prairie Creek Crude Co.'s No. 1 Ellington, 150 ft. and 200 ft. W from SE cor. 42-ac. tr., J. Burleson Sur. ..... Cmtd. 6-in. 3,360 ft; drlg. plug.
Ridgeway et al's (now Roy F. Smith's) No. 1 Polley, Dominguez Gonzales Sur., 3,180 ft. E of SW cor., 160 ft. N at right angles of Polley 457-ac. tract ..... S.D. 3,045 ft.
Redberry et al's No. 1 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. Jane Stoddard Sur. ..... S.D. 2,375 ft.
Gray & Dunbar's No. 1 C. A. Hayden, 600 ft. N and W, SE cor. 152-ac. tr. in D. T. F. Yordt Sur. ..... S.D. for wtr. 2,280 ft.

Louisiana-Arkansas Proven Areas

North Louisiana

BOSSIER—BELLEVUE AREA

Company, well, farm name, section and block— Remarks:
H. I. Morgan's No. 2 Smith, 1,520 ft. N, 660 ft. W, SE cor., Sec. 22-19-11 ..... Drlg. red shale 3,780 ft.

CADDO—RODESSA AREA

United Gas Public Service Co.'s No. 1 Levee Board, 1,980 ft. N, 1,320 ft. E, SW cor. Sec. 27-23-16 ..... Drlg. lime 3,933 ft.

CADDO—BETHANY AREA

Calatex O. & G. Co.'s No. 1 Mrs. E. Augurs, 3,567 ft. N, 2,600 ft. E, SW cor. Sec. 19-16-16 ..... S.D. 2,920 ft.

CADDO—BLANCHARD AREA

Nick Barbare's No. 1 Puckett, 330 ft. S, 150 ft. W, NE cor. Sec. 6-18-16 ..... S.D. 1,720 ft.
Louana O. & G. Co.'s No. 1 Carrie et al, 1,320 ft. W, 660 ft. S, NE cor. SE Sec. 32-19-16 ..... Drlg. 2,650 ft.
Louana O. & G. Co.'s No. 1 Waskom, 660 ft. N and E, SW cor. Sec. 29-19-16 ..... Set 10-in. 60 ft.
Pyramid Oil Corp.'s No. 2 C. C. Wheeler, 660 ft. S, 250 ft. E, NW cor. Sec. 4-18-16 ..... Location.

CLAIBORNE PARISH—SUGAR CREEK

United Gas Public Service Co.'s No. 1 Stevenson-Kilpatrick et al, 1,870 ft. W, 1,070 ft. N, SE cor. Sec. 1-19-6 ..... Cmtd. 9-in. 4,227 ft.

DE SOTO PARISH

Abernathy et al's No. 1 J. M. Nabors, 2,485 ft. E, 1,185 ft. N, SW cor. Sec. 32-13-11 ..... Tested dry 1,408 ft.; W.O.

OUACHITA PARISH

Carbon Consolidated's No. 7 Guthrie, 1,025 ft. N, 910 ft. E, SW cor. Sec. 23, in Sec. 50-20-4e ..... Location.

SABINE PARISH—ZWOLLE

J. H. Askew's No. 2 Henderson, 400 ft. S, 150 ft. E, NW cor. SW SE Sec. 31-8-10 ..... Derrick.
H. H. Alvoid's No. 1 Sabine State Bank, 330 ft. N and E, SW cor. NW SW Sec. 28-8-11 ..... Location.
Baird Bros.' No. 3 Martines, 1,012 ft. S, 907 ft. E, NW cor. NW SW Sec. 2-7-13 ..... Tested dry 2,410 ft.; arranging to deepen.
Baird Bros.' No. 1 Tatum, SW NE Sec. 25-8-12 ..... Derrick.
Baird, Stone & McFaddin's No. 1 Duggan, 150 ft. S and W, NE cor. SE Sec. 14-7-11 ..... W.O.S.R. 2,637 ft.
C. W. Beene et al's No. 1 Cutrer, 200 ft. N and E, SW cor. NW Sec. 12-7-11 ..... Derrick.
Brown Lbr. Co.'s No. 1 fee, 330 ft. E, 520 ft. N, SW cor. NW NE Sec. 1-7-11 ..... Rigging up.
Cameron Oil Co.'s No. 1 G. Martines, 845 ft. E, 540 ft. N, SW cor. Sec. 2-7-13 ..... Coring 2,064 ft.
Capitol-Crescent Oil Co.'s No. 1 Sabine State Bank, 990 ft. E, 338 ft. N, SW cor. NW SW Sec. 2-7-13 ..... Derrick.
T. B. Carpenter's No. 1 Cutrer, 330 ft. S and E, NW cor. SE Sec. 13-7-11 ..... Cmtd. 6-in. 2,546 ft.
Continental Drlg. Co.'s No. 1 Leone est., 70 ft. N, 200 ft. W, SE cor. Sec. 21-8-13 ..... Began Dec. 29; S.D. 10 ft.
Corporation Oil Co.'s No. 1 Eberts, 330 ft. N and E, SW cor. NW NE Sec. 1-7-11 ..... Cmtd. 6-in. top marl 2,424 ft.

Craig et al's No. 1 Ponder, 330 ft. N and E, SW cor. SE NW Sec. 15-7-11 ..... Began Dec. 12; S.D. 50 ft.
Crescent Drlg. Co.'s No. 1 Garner Est., 330 ft. S, 330 ft. E, NW cor. NE Sec. 4-7-11 ..... Standing 800 ft. oil; arranging acid test.
Edwards & Hubler's No. 1 G. Martinez, 510 ft. S, 330 ft. E, NW cor. SW SW Sec. 2-7-13 ..... Derrick.
V. R. Hammons et al's No. 1 Travis, 540 ft. N, 150 ft. E, SW cor. NW SE Sec. 13-7-11 ..... S.D. black shale 2,480 ft.
D. D. Holcomb's No. 2 Quayhaglew, 149 ft. N, 200 ft. E, SW cor. SE SE Sec. 11-7-11 ..... W.O.S.R. 2,652 ft.
E. L. Hunt's No. 2 Livingston, 330 ft. S and E, NW cor. SW NW Sec. 9-7-11 ..... Drlg. 1,820 ft.
H. M. Jones' No. 1 Raines, 300 ft. S, 150 ft. W, NE cor. NW NW Sec. 14-7-11 ..... Arranging acid test 2,660 ft.
Kilgore et al's No. 2 Thomas, 330 ft. E, 330 ft. N, SW cor. SW NE Sec. 30-8-11 ..... Drlg. 1,410 ft.
Loring Oil Co.'s No. 21 Bowman-Hicks, 460 ft. S, 275 ft. E, NW cor. SW NW Sec. 16-7-13 ..... S.W. show; D.S. stuck; T.D. 5,439 ft.
Martin et al's No. 1 Porter, 330 ft. S, 330 ft. W, NE cor. NW SW Sec. 30-8-11 ..... Derrick.
L. K. McGuffin's No. 2 Chadick, 200 ft. S, 200 ft. W, NE cor. NW SW Sec. 32-8-10 ..... Location.
H. C. Moulding's No. 1 Brumley, 330 ft. N, 330 ft. E, SW cor. NW NW Sec. 2-7-11 ..... Derrick.
Paul L. Miller's No. 3 Chadick, 550 ft. N, 430 ft. E, SW cor. SE NW Sec. 32-8-10 ..... Derrick.
C. D. Neff, tr.'s No. 2 Snell, 400 ft. E, 330 ft. N, SW cor. SE SE Sec. 9-7-11 ..... Top marl 2,368 ft; cmtd. 6-in. 2,370 ft; bailing to test; T.D. 2,470 ft.
E. F. Neely's No. 5 Ponder, 530 ft. S, 370 ft. W, NE cor. Sec. 16-7-11 ..... S.O.; bailed dry; W.O. 2,563 ft.
E. F. Neely's No. 6 Ponder, 450 ft. N, 150 ft. W, SE cor. SW NW Sec. 15-7-11 ..... S.D. 1,306 ft.
Nowlin & Cherry's No. 1 Turner, 109 ft. N, 330 ft. W, SE cor. Fractional NW NW Sec. 4-7-11 ..... Began Dec. 12; drlg. 50 ft.
H. L. Patton's No. 1 Ponder, 330 ft. N and W, C Sec. 15-7-11 ..... Top marl 2,376 ft; S.D.
Pelican Nat. Gas Co.'s No. 18 La. Long Leaf Lbr. Co., 330 ft. S and W, NE cor. NE NW Sec. 31-8-11 ..... Began drlg. Dec. 27; cmtd. 10-in. 45 ft.
Perkins & Babbin's No. 1 Hopkins, 260 ft. S, 270 ft. W, NE cor. NE SW Sec. 11-7-11 ..... Location.
G. N. Pharis, Tr.'s No. 1 Cutrer, 990 ft. S, 330 ft. E, center Sec. 13-7-11 ..... Derrick.
T. L. Phillips et al's No. 1 Haley, 330 ft. S and E, NW cor. NW SE Sec. 4-7-12 ..... Derrick.
Picayune Oil Co.'s No. 1 Porter, 330 ft. N and W, SE cor. NW SW Sec. 30-8-11 ..... Began drlg. Nov. 21; cmtd. 10-in. 40 ft.; S.D. 1,818 ft.
Sam Riggs, tr.'s No. 1 Darby, N half SE Sec. 21-7-11 ..... Cmtd. 7-in. 2,504 ft; T.D. 2,556 ft.
Ritchie Prod. Co.'s No. 1 Byrd, 503 ft. N, 399 ft. W, SE cor. NE NW Sec. 1-7-11 ..... Comp. pumping 50 bbls. 2,465 ft.
Ritchey Prod. Co.'s No. 1 Stille, SE NW Sec. 36-8-12.. Derrick.
Rotary Oil Corp.'s No. 1 Hale, 330 ft. S and E, NW cor. SW Sec. 1-7-13 ..... Drlg. 1,924 ft.
C. T. Ruffin's No. 1 Lilly, 545 ft. S, 200 ft. W, NE cor. NW NW Sec. 8-7-11 ..... Show oil; bailed dry; W.O. 2,376 ft.
E. M. Self's No. 1 Newton, 330 ft. S and W, NE cor. NE SE Sec. 1-7-11 ..... Rig up.
Scully & Beach's No. 4 Lafitte, 225 ft. E, 197 ft. S, NW cor. SW NW Sec. 13-7-11 ..... Derrick.
Scully & Beach's No. 5 Lafitte, 413 ft. E, 190 ft. W, NE cor. SW NW Sec. 13-7-11 ..... Arranging swab through tubing 150 ft. in oil; T.D. 2,492 ft.
Service Drlg. & Royalties Corp.'s No. 2 Smith, Sec. 12-7-11 ..... Top marl 2,626 ft; coring 2,630 ft.
Simmons et al's No. 1 Fleming, E½ SE SE Sec. 11-8-13.. Rigging up.
Scully & Beach's No. 3 Lafitte, 1,030 ft. S, 134 ft. E, NW cor. Sec. 13-7-11 ..... W.O.S.R. 2,492 ft.
F. E. Stancil's No. 1 Pouder, 273 ft. S, 397 ft. E, NW cor. NE SE Sec. 10-7-11 ..... S.D. 2,593 ft.
State Prod. Co.'s No. 1 Keaszle, 150 ft. N and W, SE cor. NW SW Sec. 2-7-13 ..... W.O.S.R. 2,427 ft.
State Prod. Co.'s No. 1 Lites, 150 ft. S and W, NE cor. SE SW Sec. 25-8-11 ..... Derrick.
State Prod. Co.'s No. 1 Sabine Lbr. Co., 365 ft. N, 100 ft. W, SE cor. NW SW Sec. 2-7-13 ..... S.D. 2,427 ft.; 1,000 ft. oil.
The Texas Co.'s No. 1 Ponder, 1,490 ft. S, 200 ft. W, NE cor. Sec. 16-7-11 ..... Location.
The Texas Co.'s No. 5 Stille, 330 ft. N, 1,980 ft. E, SW cor. Sec. 33-8-11 ..... Dry 2,276 ft; dry 2,326 ft; dry 2,620 ft; bailing to test after acid treatment; T.D. 2,620 ft.
E. M. Thomasson's No. 1 W. & H. Andries, 500 ft. N, 150 ft. W, center Sec. 32-7-11 ..... S.D. for csg. 2,300 ft.
J. H. Watt et al's No. 1 Pouder, 200 ft. S, 135 ft. W, NE cor. NW NE Sec. 15-7-11 ..... Derrick.
B. R. White et al's No. 1 Cooper, 330 ft. S and E, NW cor. SW NW Sec. 32-8-11 ..... Location.
B. R. White et al's No. 1 Stille, 620 ft. W, 205 ft. N, SE cor. NE SW Sec. 25-8-13 ..... Drlg. 1,205 ft.
Zwolle Prod. Co.'s No. 1 Tatum, 550 ft. E, 330 ft. N, C Sec. 25-8-12 ..... Began drlg. Dec. 5; cmtd. 10-in. 45 ft.

Arkansas

UNION COUNTY—URBANA

Graves, Ferguson & Fuller's No. 1 Patterson, SW cor. NE NE Sec. 31-19-16 ..... Derrick.
Wilson & Chapman's No. 2 Emily King, Sec. 5-18-13, 150 ft. S, 150 ft. E, NW cor. NE NE ..... S.D. 1,730 ft.

East Texas

PANOLA COUNTY

Daisy O. & G. Co.'s No. 1 Rucks, John Palmer Sur. ..... S.D. 3,359 ft.

Mississippi

HINDS COUNTY

Geo. P. Adkins et al's No. 1 Woodland Hills, 400 ft. N and W, SE cor. NW NE Sec. 26-6-1e ..... Derrick.
United Gas Public Service Co.'s No. 1 Ed Fondren, 330 ft. E, 660 ft. S, center Sec. 24-6-1e ..... Top black shale (Midway) 2,453 ft; coring 2,495 ft.

RANKIN COUNTY

J. A. Baker et al's No. 2 Rankin Side Dev. Co., Sec. 6-5-2e ..... S.D. high wtr.; top chalk at 2,461 ft.
J. A. Matson et al's No. 1 Warner, 1,100 ft. S, 200 ft. W, NE cor. W½ SE Sec. 14-5n-1e ..... Waiting on csg. 2,477 ft.

Wildcat Operations in Mississippi

AMITE COUNTY

Company, well, farm name, section and block—	Remarks:
Magnolia State O. & G. Co.'s No. 1 Anderson, C NE NW Sec. 14-3n-3e	S.D. 400 ft.

CLARKE COUNTY

F. X. Gewans et al's No. 1 Effring, SE NE Sec. 13-1n-14e. S.D. 104 ft.

COVINGTON COUNTY

Eastman Gardner Interest's (was Modisette Drlg. Co.) No. 1 Eastman-Gardner Lbr. Co., No. 1 Minerals fee, NE NW Sec. 29-9n-6w ..... Rig up.

HINDS COUNTY

Cleve Love's No. 2 Security Realty Co., 1,855 ft. N, 783 ft. E, SW cor. Sec. 36-6-1e ..... T.D. 2,447 ft; set 6-in.; S.D. account of high wtr.
Love & Lancaster's No. 1 Elton Plantation, C SE Sec. 17-4n-1e ..... S.D. Eutow (Blossom) 5,050 ft.
National Gas Co. of Miss.' No. 1 M. C. Halder, 160 ft. E, 660 ft. N, SW cor. Sec. 16-6n-1e ..... S.D. for csg. 310 ft.

JASPER COUNTY

B. B. Jones' No. 1 Bank of Philadelphia, 660 ft. N and W, SE cor. Sec. 35-3n-12e ..... Drlg. black shale 3,798 ft.

JACKSON COUNTY

Gulf Ref. Co. of La.'s No. 1 Danciger, 2,440 ft. S, 1,120 ft. W, NE cor. Sec. 27-4s-8w ..... Began Dec. 6; core drlg.

LAMAR COUNTY

Chas. W. Gorr et al's No. 1 Jordan, NW cor. SW Sec. 1-2n-15w ..... Derrick.
Stauffer & Kouri's No. 1 Bond, SE NE Sec. 18-2n-14w ... D.S. stuck 3,025 ft.

MONROE COUNTY

P. J. McAlpine's No. 1 Rye, Sec. 22-15n-17w ..... S.D. in lime 2,335 ft; high wtr.

NEWTON COUNTY

Bob Dalton's No. 1 Majure, 400 ft. N, 300 ft. E, SW cor. SE Sec. 25-6n-11e ..... S.D. gumbo 2,257 ft.

RANKIN COUNTY

Home Oil Prod. Corp.'s No. 1 So. Jackson Land Co., 85 ft. S, 130 ft. W, NE cor. NW SW Sec. 23-5n-1e ..... S.W. and abd 2,580 ft.
Love Pet. Co.'s No. 2 Int. Lbr. Co., 450 ft. S and E, NW cor. Sec. 28-6n-2e ..... Arranging to deepen 2,665 ft.
Majestic O. & G. Co.'s No. 1 Elton Lbr. Co., Sec. 10-4n-3e.. Derrick.

SCOTT COUNTY

M. U. Culley et al's No. 1 Owens, Sec. 2-5-9 ..... S.D. 750 ft.

WEBSTER COUNTY

P. J. McAlpine's No. 1 Hensley, Sec. 15-21-11 ..... Cored Tuscaloosa 1,800 ft; S.D.

WILKINSON COUNTY

Foster Creek Oil Co.'s No. 1 Foster Creek Lbr. Co., Sec. 12-3n-2w ..... Began drlg. Dec. 26; drlg. 320 ft.

Wildcat Operations in Alabama

BALDWIN COUNTY

H. H. Givens' No. 1 Ashman, Sec. 10-6-5e ..... Drlg. 500 ft.

CULLMAN COUNTY

C. V. Corey's No. 1 King, NE cor. NE NW Sec. 35-8-4w.. S.D. 710 ft.

LAMAR COUNTY

(Cable tools)

Company, well, farm name, section and block—	Remarks:
De Soto O. & G. Co.'s No. 1 Gardner, NW NW Sec. 22-15s-16w	S.D.; shale 3,300 ft.

WASHINGTON COUNTY

South Ala. O. & G. Co.'s No. 1 Wilson, Sec. 26-1n-1w ..... Drlg. chalk 2,850 ft.

Wildcat Operations in Southwest Texas

(Continued from Page 47)

Nelson Pruitt's No. 1 C. Lentz, 330 ft. from NE line, 2,050 ft. from SE line of 400-ac. tract in J. B. Lentz Sur. ..... T.D. 2,499 ft; S.D.
H. Robertson's No. 1 Schmidt, 25 ft. from N line, 350 ft. from W line of D. H. Dyer Sur. ..... T.D. 80 ft.; spudded in and S.D.
Texas and Gant's No. 1 Mikulec, 330 ft. to NW and SW lines of tract in Wm. Barton Sur. ..... Rigging up.

BEE COUNTY

Grisham et al's No. 1 Hill, 330 ft. from S and E lines of W half of Sec. 11, Ragsley Subd. ..... T.D. 4,057 ft; abd.
Nichols & Bruner's No. 1 Grover Heldenfels in John Bryan Sur., 891 ft. from S line, 1,950 ft. from E line of tract ..... T.D. 3,500 ft; drlg.
W. C. Pool's No. 1 J. C. Wood, 150 ft. N along E line of H.&G.N. Sur. from NE cor. of Mary O'Connor lease, thence 450 ft. E at right angles ..... Moving in rig.

BELL COUNTY

James Scoggins' No. 2 Warrick, 1,000 ft. to NW line, 2,400 ft. to NE line of 335-ac. tract in Ingram Sur. .. T.D. 1,432 ft.; fishing.

BEXAR COUNTY

Amsden-Ingersoll-Miller's No. 1 Strumberg, 450 ft. to W line, 1,020 ft. to N line of tract, 12 miles SW of San Antonio ..... T.D. 1,054 ft.; standing.
Robert C. Hill's No. 1 Schell, 1,300 ft. from N line, 1,100 ft. from W line of 161-ac. tract in Sec. 234, Perretaux Sur. ..... T.D. 894 ft.; S.D.
Rollin V. Hill, Sr.'s No. 1 Max Boeck, 1,700 ft. from N line, 2,700 ft. from E line of tract in J. R. Shepherd Sur. ..... T.D. 398 ft.; setting csg.
Leonard Ray's No. 1 Thomas Dillon, 1,250 varas to SW lines, 1,050 varas to NW lines of M. DeLuna grant, J. H. Penshorn Sur., 3½ miles S of Lesoya ..... T.D. 400 ft.; drlg.
H. G. Venable's No. 3 F. Dulling, 1,500 ft. W of center of E line of tract ..... Location.

BLANCO COUNTY

H. T. McGee's No. 1 Forbes, cen. Sec. 167 ..... Rigging up.
Hardy Sitton's No. 1 Luders, 150 ft. from S line, 1,420 ft. from E line of James Stanford Sur. ..... T.D. 1,540 ft.; standing.

BROOKS COUNTY

M. P. Evans' No. 1 Amanda Perez, 1,300 ft. from N line, 200 ft. from W line of Sec. 6, La Encantada grant ..... T.D. 1,565 ft; abd.

CALDWELL COUNTY

Louis Crouch's No. 1 Sue Neelan, 1,500 ft. to SE lines, 150 ft. from NE lines of 200-ac. tract in John B. Gray Sur. ..... T.D. 1,000 ft; drlg.
J. M. Dickson's No. 1 W. T. Mooney, 7,600 ft. from NE line, 5,200 ft. from SE line of Solomon Seal Sur. ..... T.D. 2,265 ft.; standing.
E. D. Herne's No. 1 M. C. and P. W. Jeffrey 126-ac. tract, 150 ft. from N and E lines of tract in James George Sur. ..... Set surface pipe, waiting for wtr.
E. L. Hope and Joe Cole's No. 1 M. August, 150 ft. from NE line, 185 ft. from NW line of tract in A. Floyd Sur. ..... T.D. 20 ft.; spudded in and S.D.
J. W. Kemp's No. 1 George Vickery, 760 ft. from SE line, 200 ft. from NE line of tract in Squire Damon Sur. ..... T.D. 2,100 ft.; reset csg. 1,820 ft.
C. J. Webster Oil & Gas Co. and D. V. Smith's No. 1 McMahon, 450 ft. to SW of center of NE line of 50-ac. tract in James Pinchback Sur. ..... T.D. 2,401 ft; abd. in Edwards.

COMAL COUNTY

Caldwell and M. Lanier's No. 1 T. J. Byler, 175 varas from W line, 370 varas from N line of 320-acre tract in H.E.&W.T. Sur., Sec. 894 ..... T.D. 943 ft; abd.

DIMMITT COUNTY

Motes-Campbell Co.'s No. 1 Denton, 150 ft. from E line, 250 ft. from S line of Tracts 33 and 34 in Sec. 60 of Denton Colony Subd. ..... T.D. 1,400 ft; changing to rotary.

DUVAL COUNTY

Buchanan, Schoolfield & Frasher's No. 1 Sling, 330 ft. from N and E lines of SE of Sur. No. 118 ..... T.D. 1,400 ft; drlg.
Cowden et al's No. 1 State Bank of Alice, 209 ft. to S line, 1,450 ft. to W line of E. Valentine Sur. No. 26.. Steel derrick.
Frank Gravis' No. 3 Schallert in Sur. 256 (Palangano salt dome) ..... T.D. 2,060 ft.; standing.
Huff & Kyle's No. 1 A. Roach, 865 ft. from E line, 45 ft. from S line of Blk. 7, Sur. No. 457 ..... T.D. 60 ft; spudded in.
Edwin M. Jones' No. 1 Duval County Ranch Co., 150 ft. to S and E lines of NE of Sur. 278 ..... Location.

Newton et al's No. 1 Welder-Wood, 5,550 ft. from W line, 4,590 ft. from N line of Sur. 102 ..... Rigging up.
C. P. Scott's No. 1 J. W. Kidd, 990 ft. from N and E lines of SE of Sur. No. 56 ..... T.D. 2,370 ft; in sand.
Smith & Capps' No. 1 Peters, 330 ft. from S line, 340 ft. from W line of NE of Sur. No. 178 ..... T.D. 1,200 ft.; drlg.
Stanley Smith's No. 1 C. Pena, 330 ft. from S and W lines of Sur. No. 79 ..... T.D. 1,860 ft; drlg.
Wm. B. Stewart's No. 1 Duval County Ranch Co., 990 ft. to S and E lines, of NE of Sur. 362 ..... Rigging up.
S.R.C. Oil Co.'s No. 1 Duval County Ranch Co., 150 ft. from N line, 4,200 ft. from W line of Sur. 192 ..... Location.

FRIO COUNTY

Amerada Pet. Corp.'s No. 1 Haiff & Oppenheimer, 1,200 ft. from N line, 200 ft. from E line of W. F. Halsel Sur. ..... T.D. 5,800 ft; drlg.

GILLESPIE COUNTY

Rod Lagra's No. 1 Stephen, 500 ft. from N and W lines of A.B.&M. Sur. No. 969 ..... Spudded in.

GUADALUPE COUNTY

B. E. Brock's No. 1 Ogletree, 1,600 ft. from W line, 450 ft. from S line of tract in Robert Smith Sur. ..... T.D. 2,080 ft.; drlg. lime.
Keene & Russell's No. 1 Lowman, 300 ft. from E line, 350 ft. from N line of tract in George Allen Sur. .... T.D. 380 ft.; standing.
W. A. Scrutchin's No. 1 S. J. Lowman, 170 ft. from N line, 195 ft. from W line of 10-ac. tract, in Blk. 1, Sec. No. 1 of S. J. Barnes Sur. ..... Derrick.
H. A. Suttle's No. 2 Halm, 525 ft. due S of No. 1 Halm in Jos. Kent Sur. ..... T.D. 1,930 ft; abd. in Edwards.
F. W. Tong's No. 1 Henry Rahe, 650 ft. to SW lines, 1,300 ft. to NW lines, Moses Baker Sur. ..... T.D. 1,052 ft; abd.
Walton et al's No. 1 Dan Darling, 1,800 ft. from NW line, 1,198 ft. from SW line of Ben Fuqua Sur. ..... T.D. 216 ft.; S.D. to clear title.

GOLIAD COUNTY

Hoffman & Gooch's No. 1 Fromme, 600 ft. from N and 1,200 ft. from W line of Peter B. Dexter Sur. ..... T.D. 2,470 ft.; standing.

GONZALES COUNTY

Antibus et al's No. 1 James, 6,350 ft. from N line, 1,300 ft. from E line of Mary A. Williams Sur. ..... T.D. 2,475 ft; drlg. in shale.
Edmiston & Kirby Pet. Co.'s No. 1 J. W. Ward, Jr., 300 ft. from N line, 833 ft. from W line of tract in Dan McKay Sur. ..... T.D. 1,592 ft.; standing.
A. King's No. 1 F. Ramzinski, 1,021 ft. from N line 1,320 ft. from E line of tract in Gonzales Townsite Sur. ..... Spudded in.

HIDALGO COUNTY

Barrett-Kanellos' No. 1 J. B. Brock, 7 miles W and N from Mission (on Monte Cristo road) ..... T.D. 4,590 ft. S.D.
Palm City Pet. Co.'s No. 1 J. T. Lomax, 7,500 ft. from S and E lines of San Roman Sur. ..... T.D. 1,445 ft.; drlg.
Dayle L. Smith's No. 3 Daskam, SW part of county ..... T.D. 1,726 ft.; S.D.

JIM HOGG COUNTY

Clark & Cowden's No. 2 Vela, 2,010 ft. to E line, 670 ft. to N line of Sur. No. 588 ..... T.D. 2,300 ft; gas; abd.
Cole Pet. Co.'s No. 1 W. Allen, 990 ft. to E line, 1,320 ft. to N line of Blk. 13, Randado grant ..... T.D. 2,600 ft.

JIM WELLS COUNTY

Humble Oil & Ref. Co.'s No. 1 Fuhrkin, 1,117 ft. from N line, 450 ft. from W line of 150.77-ac. tract in Phillips Sacks Sur. ..... T.D. 1,214 ft.; setting csg.
F. A. Lain's No. 1 Vernon Porter, 800 ft. from S line, 400 ft. from W line of 200-ac. tract in Sur. 25 ..... T.D. 3,611 ft.; standing.

KARNES COUNTY

A. E. Edmiston's No. 1 G. W. Cross, 500 ft. from E line, 150 ft. from N line of tract in M. N. Reed Sur. ..... Spudded in.
Hindeman et al's No. 1 F. C. Weinert ..... Spudded in, S.D.
H. J. Porter et al's No. 1 Reasoner, 1,800 ft. to S line, 650 ft. to E line of 125-ac. tract ..... Drlg. wtr. well.
Tippett & Mull's No. 1 Smith, 8,500 ft. from N line, 200 ft. from E line of Francis Haskins Sur., 3½ miles E of Helena ..... Spudded in.

KERR COUNTY

Eastland Oil Co.'s No. 1-C Jeff Love, 150 ft. from S and E lines of C.C.S.D.&R.G.N.G. Sur. No. 1,595 ..... T.D. 2,542 ft. in sand carrying wtr. S.D. crew sick.
Evans & Gant's No. 1 Estelle Young, 150 ft. out of NW cor. of Sec. 28, E. A. Burge Sur. ..... T.D. 1,310 ft.; standing.
Van Duyn & Moore's No. 1 Nowlin, 2,000 ft. from E line, 2,200 ft. from N line of James R. Bettner Sur. .. T.D. 525 ft.; setting csg.
Verde Oil & Gas Co.'s No. 1 J. D. Witt, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 1,923 in Hamilton Sur. ..... T.D. 118 ft.; standing.

KLEBERG COUNTY

Harris et al's No. 1 Dennett, 600 ft. from S line, 760 ft. from E line of Blk. 7, Sec. 38, Kleberg Town & Imp. Co. Subd. ..... T.D. 160 ft.; standing.
H. Carter's No. 1 R. H. Simmons, 150 ft. from S and W lines of tract in Sec. 7, King Sur. No. 3 ..... T.D. 3,205 ft.; standing.

LA SALLE COUNTY

Interstate Oil Industries, Inc.'s No. 1 J. F. Mayes, 600 ft. from S and W lines of Blk. 20, I.&G.N. Sur. No. 19 ..... T.D. 2,825 ft; standing.

LIVE OAK COUNTY

Carroll Brown's No. 1 Beckley, 1,800 ft. E along N line of T. B. Sparks Sur., from NE cor., thence 150 ft. at right angles, L. J. Sparks Sur. ..... Rigged up.
J. A. Harper's No. 1 fee, 2,130 ft. to N line, 510 ft. to E line of farm, J. Pointevant Sur. 37 ..... T.D. 2,092 ft.; S.D.
M.W.R. Oil Corp.'s No. 1 Ohlendorff, 649 ft. from NE line, 285 ft. from SE line of Blk. 25, S. G. Irrigation Co. Sur., 3 miles N of Whitsett ..... T.D. 1,100 ft.; drlg.
H. A. Pagenkopf's No. 1 Nichols, 850 ft. to W of E line, 450 ft. S of E line, Bridget Haughtey Sur. ..... Spudded in.
C. J. Webster Oil & Gas Co.'s No. 1 O. F. Akers, 300-ac. tract in T. Henry Sur. ..... T.D. 100 ft.; standing.

LEE COUNTY

Paton Bros.' No. 2 Turner, 150 ft. due SE of No. 1-A Turner, junked at 5,675 ft. in the David Hudson Sur., 2 miles SE from Tanglewood ..... Location.

MAVERICK COUNTY

Kivagi Oil Co.'s No. 1, 2½ miles N of Eagle Pass ..... Dropped; making new location.

McMULLEN COUNTY

L. W. Capps' No. 1 Hagist, 1,650 ft. from N line, 2,640 ft. from E line of Sec. 6, J. W. Osborne Sur. ..... Location.
Howeth & O'Neill's No. 1 Roos Bros., 150 ft. from N line, 650 ft. from W line of Sec. 30, Rhodes ranch, Beatty, Seale & Forwood Sur. ..... T.D. 1,800 ft.; drlg.
Jaqua & Crow's No. 1 Hagist, 330 ft. from N and W lines of R. W. Mills Sur. No. 467 ..... Rigging up heavier rig.
Chas. B. Loftin's No. 1 R. H. Brown, in R. H. Brown Sur. No. 3 ..... Spudded in.
C. C. Shumway's No. 1 Shiner, 400 ft. from W line, 200 ft. from N line of Blk. 45 of Shumway Subd. of Shiner ranch ..... T.D. 370 ft.; S.D.

MEDINA COUNTY

James E. Greenlea's No. 1 Feasler, 600 ft. from N line and 2,400 ft. from E line of L. G. Harrison Sur. No. 799 ..... T.D. 1,230 ft.; standing.
Moore, Richey & Clifton's No. 1 Reicherers, 150 ft. from N and W lines of tract, SW of Lacoste ..... Set surface csg.
F. Ryal's No. 1 G. Martin, 150 ft. from S and W lines of Blk. 368, H. Castro Sur. ..... Spudded in and S.D

MILAM COUNTY

Bridwell's No. 1 Terry, 1,100 ft. from N line, 800 ft. from W line of tract in Jose Leal Sur. ..... T.D. 2,460 ft.; drlg.
Ed Clark's No. 1 Pritchard, 1,100 ft. to SE lines, 700 ft. to NE lines of 163-ac. tract in F. Ernst Sur., 6⅛ miles NE Thorndale ..... Rigged up.
Glass et al's No. 1 Ellison, 700 ft. from N line, 1,350 ft. from W line of 200-ac. tract in Samuel Frost Sur. ... T.D. 1,665 ft.; S.D.
Keyser & Roberts' No. 3 Ward, 125 ft. NE of No. 2 Ward, on S. S. Pallin tract in Levi Taylor Sur. ..... T.D. 1,810 ft.; drlg.
Marvel Wells, Inc.'s No. 1 fee, center of 5-ac. tract out of Wm. Henits 133.8-ac. tract in J. J. Liendo Sur. .. T.D. 1,940 ft; drlg. shale.

NUECES COUNTY

Gulf Port Oil Co.'s No. 1 Luby, 2,044 ft. from N line, 2,142 ft. from S line of John M. Luby, 531.74 acres, Blk. 1 of Mary J. Luby Share 1-G of Anna Collins Petronilla pasture, 24 miles SW from Corpus Christi .. T.D. 4,750 ft; abd.
Miller et al's No. 1 Harney, 200 ft. from NW line, 1,850 ft. from SW line of 445-ac. tract in Gregoria Farias Sur. ..... Moving in tools.
George Noble's No. 1 Homeland Syndicate, 300 ft. to SE and SW lines of Blk. 8, Sec. 12, 5 miles S Corpus Christi ..... Location.

STARR COUNTY

Adams & Modest's No. 1 Wood, 2,070 ft. from W line of Porcion 84, Camargo, and 1,472 ft. N of Missouri Pacific Railroad ..... Spudded in.
W. P. Chancellor's No. 1 A. Guerra, 26,000 ft. from S line, 2,600 ft. from E line of Share 6, of San Jose grant ..... T.D. 750 ft.; drlg.
B.&B. Oil Co.'s No. 1 Crown Brick & Tile Co., 1,800 ft. S of State Highway No. 4 and 580 ft. from W line of Porcion 87, near La Puerta ..... T.D. 3,670 ft; standing.
D. H. Carpenter's No. 1 Salinas, 3,087 ft. from N line, 1,321 ft. from E line of Share 85 of partition of Porcions 38, 39, 40 in Jurisdiction of Reynosa ..... T.D. 2,750 ft; repairing rig.
Coastal O. & G. Co.'s No. 1 Kelsey Bass, 448 ft. to N line, 150 ft. to W line of Tract 52, Sur. 2, Porcion 86 .. T.D. 1,860 ft.; changing to heavier rig.
W. T. Gilman & Travelers Oil Co.'s No. 1 C. Ramos, 1,170 ft. from SW line, 1,470 ft. from NW lines of Sur. No. 150 ..... Spudded in and S.D.
Goodwin & Yantis' No. 1 Walker, 450 ft. SE of W line of Isabel Lopez property in Sur. 767 ..... Moving in rig.
Great Plains Oil Co.'s No. 1 Sanchez, 660 ft. from W line, 330 ft. from S line of SE of NW of Sur. No. 344 ..... T.D. 1,076 ft; drlg.
Jeffries and Lambeth Drilling Co.'s No. 1 Starr County Cattle Co., 11,572 ft. from N line, 2,490 ft. from E line of Porcion 89, Jurisdiction of Camargo ..... T.D. 1,522 ft; tested gas; set csg.
Boyd C. Jones' No. 1 Garza, 2,407 ft. from N and E lines of Share 26, Part. of Porcions 67-72, Jurisdiction of Mier ..... T.D. 505 ft; no report.
LaJoya Oil & Gas Co., in Porcion 29, NE part of county .. Location.
A. C. McGahhey's No. 1 Fernandes Bros., 1,800 ft. from W line, three-quarters of a mile from Rio Grande River, in Porcion 99, Jurisdiction of Camargo ..... T.D. 180 ft.; drlg.
D. A. Miller's No. 1 Madrigal, 4,827 ft. to N line, 1,987 ft. to E line of Share 15, Porcions 67, 72, 1 mile NE of Roma ..... T.D. 105 ft.; no report.
John Pope, trustee's No. 2 H. Gonzales, 150 ft. W of cen. of E line of Sur. No. 339 ..... Spudded in
J. W. Seaward's No. 1 F. Dawson, 495 ft. from W line, 240 ft. from S line of tract in Blk. 6, Share 3-B of Porcion No. 70 ..... Location.
George Stobaugh's No. 1 Seabury et al, 150 ft. from S and W lines of Porcion 107 ..... T.D. 278 ft.; no report.

TRAVIS COUNTY

J. L. Collins & Co.'s No. 1 John Carlson, 630 ft. to NE lines, 1,570 ft. from SE lines of 177-ac. tract in M. W. Smith Sur. ..... Rigging up.
J. L. Collins & Co.'s No. 1 John Carlson, 630 ft. to NE lines, 1,570 ft. to SE lines of tract in M. W. Smith Sur. ..... Derrick.
Franklin et al's No. 1 Reimer, 1,200 ft. from SE line, 1,400 ft. from most southerly SW line of Sur. 35 .. T.D. 220 ft.; S.D.
Fritz Fuch's No. 2 Wm. Smith, 150 ft. from NE line, 750 ft. from NW line of N 113 ac. in L. Kimbro Sur. . Location.

UVALDE COUNTY

J. V. Scoggin's No. 1 Olive Henry, 1,100 ft. from N and E lines of tract in Hugh Kilgore Sur. ..... T.D. 670 ft.; S.D.

WEBB COUNTY

J. W. Edwards' No. 1 M. D. Slator, 1,320 ft. to NE and NW lines of Blk. 72, Slator Subd. of J. V. Borrego grant ..... T.D. 2,050 ft; drlg.
Frank Gravis' No. 1 Puig, 150 ft. to N and W lines of Blk. 12, Edginton Subd., Albereas grant ..... T.D. 100 ft.; drlg.

WILLIAMSON COUNTY

McLean et al's No. 2 R. C. Miller, 800 ft. to S line, 100 ft. to W line of tract in B. Manlove Sur. ..... T.D. 1,450 ft.; S.D.

ZAPATA COUNTY

Hamilton, Brower & Crow's No. 1 Slator, 2,111 ft. from SW line, 1,980 ft. from SE line of Blk. 1, Subd. of Slator ranch in J. V. Borrego grant ..... Location.
Donohoo et al's No. 1-A Garcia, 150 ft. from NE and SE lines of Blk. 7 of Subd. of 700-ac. of Share A, Charco Redondo grant ..... T.D. 1,143 ft; standing.
Hamilton, Brower & Crew's No. 1 Slator, 2,111 feet from SW line, 1,980 ft. from SE line of Blk. 1, Subd. of Slator ranch in J. V. Borrego grant ..... Location.
T. J. Murray's No. 1 S. Vela, 285 ft. from NE line, 158 ft. from SE line of Blk. 145, Doty Subd., Share 4, El Grullo grant ..... Rigging up.
Phelps, Taegel & Leyendecker's No. 1 Martinez, 150 ft. to N and W lines of Blk. 15 of S. T. Phelps, Jr. Subd. "A" of Villa grant ..... T.D. 1,650 ft; drlg.
H. L. Sargent et al's No. 1 Antonio Gutierrez heirs, 922 ft. from W line, 472 ft. from S line of Tract 2, Blk. 5, Nixon Subd., Porcion 10, San Ignacio Borrego grant ..... T.D. 1,365 ft; abd.

ZAVALA COUNTY

Adair & Daniel's No. 1 Gates, 1,320 ft. from N line, 1,220 ft. from E line of Hooper & Wade Sur. No. 13 .. T.D. 3,833 ft; drlg.

Southwest Texas Proven Areas

Week Ending December 31

NORMANNA POOL—BEE COUNTY

Company, well, farm name, section and block— Remarks:
Gulf Coast Oil Co.'s No. 5 Hicks, 600 ft. E of Nichols Oil Co.'s No. 2 Hicks ..... T.D. 4,060 ft; coring.

PETTUS FIELD—BEE COUNTY

J. L. Mauldin's No. 3 fee, 300 ft. S of No. 1 fee, George A. Kerr Sur. ..... T.D. 3,000 ft; drlg.
Slick-Seeligson's No. 8 Ray, 300 ft. from SE line, 300 ft. from NE line of company lease in George A. Kerr Sur. ..... Moving in rig.

TULETA POOL—BEE COUNTY

Conservative Oil Co.'s No. 1 Cloutts, 165 ft. from W line, 150 ft. from N line of SW SW SW Sec. 3, of Ragsley Subd. of Miller ranch in Uranga Sur. ..... Location.
C.R.&M. and O'Neill's No. 1 Stoltzfus, 150 ft. from N and W lines of SE of SE of Sec. 2, Ragsley Subd. of Chittim ranch in J. M. Uranga grant ..... T.D. 4,323 ft; S.W.; abd.
Taber et al's No. 1 Harris, 150 ft. from N and W lines of Blk. 13, Sec. 13, Ragsley Subd. of Uranga grant .. T.D. 4,328 ft; tested S.W.
The Texas Company's No. 2 Cox, 250 ft. from S and W lines of SE of SW of SW of Sec. 2, Ragsley Subd. of Uranga tract ..... Location.
Titus & Calloway's No. 1 Dirks Bros., 150 ft. from S and W lines of NW of Sec. 2, Ragsley Subd. of Chittim Miller ranch, Uranga grant ..... Dropped; to be carried as Conservative Oil Co.'s No. 1 Cloutts.

GAS RIDGE—BEXAR COUNTY

American Gas Co.'s No. 5 W. H. Kennon, 1,750 ft. from S line, 2,000 ft. from E line of 400-acre tract in Maria F. Rodriguez Sur. ..... T.D. 2,220 ft.; standing.

ECKERT POOL—BEXAR COUNTY

Alamo Nat. Gas Co.'s No. 3 J. H. Gembler, 180 ft. from N and E lines of tract in A. Manachaca Sur. 51.—T.D. 1,316 ft.; standing.
E. M. Carl's No. 1 F. Gembler, 160 ft. from N line, 760 ft. from E line of tract in J. Montes Sur.—T.D. 825 ft.; standing.
F. H. Eckert's No. 1 Adolph Brehm, 160 ft. to S and E lines of tract in west part of Boquar Sur.—Moving in rig.
F. H. Eckert's No. 6 Louis Brehm, 320 ft. S of No. 5, 150 ft. to S line, 480 ft. to E line, Boquar Sur.—Moving in rig.
Gatlin Oil Co.'s No. 15 I. A. Beck, 150 ft. from S and E lines of tract in J. Montes Sur.—Location.
W. R. Swearingen's No. 11 Halbardier, 400 ft. SE of No. 10 Halbardier, J. F. Perez Sur.—Location.

DUNLAP POOL—CALDWELL COUNTY

Bob Rose's No. 2-B Walker 46-ac. tract, 360 ft. from NW line, 500 ft. from SW line of tract in Solomon Seal Sur.—T.D. 2,372 ft.; waiting for pump.

SALT FLATS—CALDWELL COUNTY

Hickman et al's No. 1 C. A. Dickerson, 150 ft. N of cen. of S line of tract in John D. Rains Sur.—T.D. 2,172 ft.; standing.

NORTH GOVERNMENT WELLS POOL—DUVAL COUNTY

Buchanan & Tyrrell's No. 3 Ellison, 320 ft. from N and E lines of NE of NW of Sur. No. 44—T.D. 2,292 ft; comp. 30 bbls. hrly.
R. H. Byrd's No. 4 Wright, 1,086 ft. from W line, 330 ft. from S line of Sur. No. 101—Location.
R. H. Byrd's No. 5 Wright, 330 ft. from N line, 1,470 ft. from W line of Sur. 101—Location.
Central Powers, Inc.'s No. 5 Tuck-Johnson, 330 ft. from N and W lines of SE SW Sur. 42—Spudded in.
H. H. Coffield's No. 5 H. Wendt, 810 ft. to E line, 330 ft. to S line, SE NE Sur. 45—Derrick.
W. T. Daniels' No. 1 F. J. Smith, 330 ft. from N and W lines of SW of NE of Sur. No. 46—T.D. 960 ft; moving in new boiler.
Hamill & Hamill's No. 5 C. W. Hahl, 330 ft. to N line, 990 ft. to E line, N½ SE Sur. 42—T.D. 1,960 ft; drlg.
Highland Oil Co.'s No. 4 A. Lundvall, 1,650 ft. from W line, 330 ft. rfom S line of S half of NE of Sur. 42.—T.D. 2,286 ft; comp. 40 bbls. hrly.
Humble Oil & Ref. Co.'s No. 2 Hahl, 660 ft. E of No. 1 Hahl in Sur. No. 74—T.D. 119 ft; spudded in.
Magnolia Pet. Co.'s No. A-3 Hahl, 330 ft. to N and W lines of NE of SE of Sur. 45—T.D. 2,311 ft; S.W.; abd.
Magnolia Pet. Co.'s No. 1 J. Riley, 330 ft. to N and E lines of SW of Sur. 45—T.D. 2,275 ft; comp. 12 bbls. hrly.
Magnolia Pet. Co.'s No. 2 Hahl-Riley, 330 ft. to N and E lines, SE NW Sur. 45—T.D. 2,350 ft; comp. 25 bbls.
Magnolia Pet. Co.'s No. 3 J. V. Allen, 330 ft. to N and E lines, S½ NE Sur. 42—T.D. 1,200 ft; drlg.
Magnolia Pet. Co.'s No. 4 J. V. Allen, 330 ft. to S and W lines of S½ SE Sur. 42—Location.
Magnolia Pet. Co.'s No. 3 Brodbeck, 330 ft. from N and E lines of W½ NW NE Sur. 44—Location.
Magnolia Pet. Co.'s No. 4-A Hahl, 330 ft. from N and W lines of SW SE Sur. 45—Location.
Magnolia Pet. Co.'s No. 2 J. W. Riley, 990 ft. from N line, 330 ft. from E line, NE SW Sur. 45—Location.
Magnolia Pet. Co.'s No. 3 White, 330 ft. from N and W lines of Sur. No. 44—Location.
Magnolia Petroleum Co.'s No. 12 G. Wendt, 330 ft. to S and W lines of NW of SW of Sur. 444—T.D. 2,323 ft; comp. 10 bbls. hrly.
Magnolia Pet. Co.'s No. 13 Wendt, 330 ft. to S and E lines of SW of NW of Sur. 44—Rigging up.
Petroleum Producers, Inc.'s No. 2 Hahl, 1,650 ft. to E line, 990 ft. to N line of Sur. 42—T.D. 2,285 ft; comp. 40 bbls. hrly.
San Diego Oil Corp.'s No. 4 L. Bennett, 200 ft. to S and E lines of SE of SW of Sur. 44—T.D. 2,312 ft; comp. 40 bbls. hrly.
San Diego Oil Corp.'s No. 5 E. Riley, 330 ft. from S and W lines of NW NW of Sur. No. 46—Location.
San Diego Oil Corp.'s No. 2 L. Bennett, 600 ft. N of No. 1, 250 ft. to W line of SE SW of Sur. No. 44.—Location.
San Diego Oil Corp.'s No. 4 E. Riley, 330 ft. from N line, 550 ft. from W line of NW NW of Sur. No. 46.—T.D. 2,290 ft; set csg; W.O.C.
Seagord & Putnam's No. 1 Lundell, 330 ft. from S and E lines of NW of NE of Sur. No. 60—Derrick.
The Texas Company's No. 3-A Wendt, NW Sur. 42—Location.
The Texas Company's No. 3 Riggs, 200 ft. from N and E lines of NE of NW of Sur. No. 46—Location.
The Texas Co.'s No. 3 C. W. Freer, 330 ft. to N and W lines of S half of NE of Sur. 45—T.D. 2,360 ft; comp. 40 bbls. hrly.
The Texas Co.'s No. 4 C. W. Freer, 990 ft. to W line, 330 ft. to N line, S½ NE Sur. 45—T.D. 2,297 ft; comp. 46 bbls. hrly.
The Texas Co.'s No. 4 Johnson, 990 ft. to E line, 330 ft. to S line of N half of SW of Sur. 42—T.D. 2,369 ft; comp. 88 bbls. hrly.
Wilkins Seacoard's No. 1 Lundell, 330 ft. to S and E lines of NW of NE of Sur. 60—Location.
Windsor Oil Co.'s No. 3 Cummings, 210 ft. from N line, 330 ft. from E line, E½ NW NE Sur. 44—Location.

SOUTH GOVERNMENT WELLS FIELD—DUVAL COUNTY

Humble Oil & Ref. Co.'s No. 10 White, 330 ft. to S line, 1,650 ft. to E line of Sur. 249—Location.

SARNOSA FIELD—DUVAL COUNTY

Atravasada Oil Co.'s No. 1 P. Henrandez, 330 ft. to NW and SW lines of E half of Sur. 574—T.D. 700 ft; drlg.
Sarnosa Oil Corp.'s No. 4 Weil, 330 ft. NW and 660 ft. NE of No. 3 in Sur. No. 130—T.D. 2,322 ft; drlg.
Smith & Capps No. 3-A Duval County Ranch Co., 537 ft. from SE line, 330 ft. from NE line of W quarter of Sur. 574—T.D. 2,472 ft; abd.
Smith & Capps' No. 4-A Duval County Ranch Co., Sur. No. 574—Location.
Sun Oil Co.'s No. 2 Casilar (Cano), 150 ft. from SW and SE lines of E quarter of Sur. No. 576.—Rigged up.

DARST CREEK FIELD—GUADALUPE COUNTY

John F. Camp's No. 3 Sue Denman, 1,025 ft. S of road, 540 ft. to E line of tract in Wm. Arrington Sur.—T.D. 2,330 ft; drlg.

SAL-MAR FIELD—GUADALUPE COUNTY

A. W. Wormser's No. 1 Harris, 150 ft. from N line of tract and 150 ft. E of creek in Green Dewitt Sur.—Derrick.

HORD'S CREEK—GOLIAD COUNTY

Sam Vanderweiss' No. 1 Kaufman, 2,700 ft. NE of NE line of B. Merrill Sur., 300 ft. NW of NW line of Vincente Ramos Sur.—T.D. 3,400 ft.

ALWORTH FIELD—JIM HOGG COUNTY

H. C. Cate's No. 1 B. J. Leyendecker, 70 ft. to E line, 330 ft. to S line, Blk. 16, Sur. 143—T.D. 1,102 ft; coring.

SANDIA POOL—JIM WELLS COUNTY

Crude Oil Royalty Co.'s No. 1 Allen (first carried as Hughes & Long's No. 1 Wade), Cen. Blk. 2, Wade ranch—Moved in 6 loads heavy machinery; to rig up next week.
Larero Gas & Pet. Co.'s No. 3 Wade, 2,000 ft. S. 33 deg. W of No. 2 Wade, thence 1,970 ft. N, 57 deg. W.—Material on ground.

JACOB POOL—McMULLEN COUNTY

Longhorn Oil Co.'s No. 2-A Lark, 660 ft. N of No. 1-A Lark—T.D. 300 ft; drlg.
Tarver & Nance's No. 1 J. Dickinson Farm Mtg. Co., 150 ft. to E line of McMullen County, 200 ft. to NW lines of tract, or 300 ft. SE of SE line of Campbell Berry Sur.—T.D. 300 ft; resumed drlg.

WENTZ POOL—McMULLEN COUNTY

V. G. Schimmel's No. 1 Wolfe, 400 ft. from E line, 300 ft. from N line of Sur. 65—T.D. 1,611 ft; abd.

ADAMS FIELD—MEDINA COUNTY

Yantis Oil Co.'s No. 1-A Adams, 50 ft. from No. 1—T.D. 630 ft.; S.D.

SAXET FIELD—NUECES COUNTY

Capps and Smith's No. 1 Hutchins, 330 ft. from S and E lines of 40-ac. tract in George Frank Sur. No. 416.—T.D. 4,974 ft; coring.
Gibson Oil Co.'s No. 1 Ran Morgan, 330 ft. from S and E lines of E 80 acres of Ran Morgan's 320 acres in B.S.&F. Sur. No. 405—T.D. 4,881 ft.; sand 4,855-61 ft.; tested 15 fourbles oil; set csg.
Gulf Coast Oil Co.'s No. 2 Perkins & Lagasse, 650 ft. from N line, 990 ft. from E line, Sec. 26, Shepherd farm lots—T.D. 5,060 ft; plugging back.
Gulf Port Oil Co.'s No. 1 Isencee, 330 ft. to N and W lines of 300-ac. tract in C. Land Sur.—Location.
Gulf Port Oil Co.'s No. 3 Frank Bliss, 1,639 ft. to N line, 350 ft. to E line of 235-ac. tract in J. W. Stevens Sur. No. 406—T.D. 847 ft; set csg.; W.O.C.
Gulf Port Oil Co.'s No. 2 Isencee, 320 ft. from N and E lines of 235-ac. tract in Charles Land Sur. No. 404.—T.D. 4,556 ft; drlg. plug.
Gulf Port Oil Co.'s No. 2 Smith—T.D. 925 ft; drlg.
Houston Oil Co.'s No. 2 McGregor—T.D. 1,800 ft.; drlg.
O. R. Seagraves' No. 1 Lagasse, 330 ft. from N and W lines of Blk. 22, of H. B. Shepherd farm lots.—T.D. 3,140 ft.; wild and on fire.
Texas Coast Oil Co.'s No. 1 Clark-Morgan, 330 ft. from S and E lines of Sur. No. 406—Derrick.
Titus & Calloway's No. 3 Lagasse, 330 ft. from N and W lines of E half of Blk. 25 of Shepherd farm lots.—Derrick.
Titus & Calloway's No. 1 Hutchins, 500 ft. from N line, 1,500 ft. from W line of Blk. 19, Shepherd farm lots.—T.D. 4,572 ft; drlg. plug.
Titus & Calloway's No. 1 Ran Morgan, 330 ft. from N and E lines of W 80 acres of E 160 acres of N half of 423 acres of B.S.&F. Sur. No. 403—Derrick.

WHITE POINT FIELD—SAN PATRICIO COUNTY

Saxet Oil Co.'s No. 19 Rachel—T.D. 3,620 ft; drlg.

LOS OLMOS POOL—STARR COUNTY

Austin et al's No. 1 Kelsey Bass, 150 ft. to N and W lines of NW of NW of Sur. 4; Porcions 75, 76, 77, Jurisdiction of Camargo—Rigging up.
Goodwin & Yantis' No. 1 Kelsey Bass, 150 ft. to S and E lines of SE of NW of Sur. 3, Porcions 75, 76, 77.—Rigging up.
Goodwin & Yantis' No. 1 Seabury, 150 ft. from N and E lines of N 80 ac. of Share 5, W portion of Porcion 75, Camargo—T.D. 934 ft; set csg.; W.O.C.
J. E. Harper & Co.'s No. 1 E. Salinas, 150 ft. to S and E lines of 40-ac. tract in Share 16, Por. 75—T.D. 308 ft.; standing.
Hooks & Weaver's No. 1 Kelsey Bass, NE SW Sec. 6, Porcions 75, 76, 77, Camargo—Moving in rig.
Keck & Keane's No. 2 Kelsey Bass, 150 ft. from N and W lines of NE NE Sec. 6 of Subd. of Porcions 75, 76, 77, Jurisdiction of Camargo—T.D. 1,026 ft. in gas sand.
Los Olmos Oil & Gas Co.'s No. 42 Kelsey Bass, 450 ft. from E line, 420 ft. from N line of SE of NW Sec. 7, Porcions 75, 76, 77, Camargo—T.D. 210 ft.; drlg.
Los Olmos Oil & Gas Co.'s No. 44 Kelsey Bass, 200 ft. from E line, 120 ft. from N line of SE of NW Sec. 7, Porcions 75, 76, 77, Camargo—Spudded in.
Los Olmos Oil & Gas Co.'s No. 45 Kelsey Bass, 500 ft. from E line, 120 ft. from N line of SE NW Sec. 7, Porcions 75, 76, 77, Camargo—Location.
Los Olmos Oil & Gas Co.'s No. 46 Kelsey Bass, 800 ft. from E line, 120 ft. from N line of SE NW Sec. 7, Porcions 75, 76, 77, Camargo—Location.
Los Olmos O. & G. Co.'s No. 47 Kelsey Bass, 200 ft. to E line, 105 ft. to S line of NE NW Sur. 7, Por. 75-76-77—Location.
Los Olmos O. & G. Co.'s No. 48 Kelsey Bass, 425 ft. to E line, 105 ft. to S line of NE NW Sur. 7, Por. 75-76-77—Location.
Los Olmos O. & G. Co.'s No. 49 Kelsey Bass, 650 ft. from E line, 105 ft. to S line of NE NW Sur. 7, Por. 75-76-77—Location.
Los Olmos O. & G. Co.'s No. 51 Kelsey Bass, 425 ft. to E line, 330 ft. to S line of NE NW Sur. 7, Por. 75-76-77—Location.
Los Olmos O. & G. Co.'s No. 52 Kelsey Bass, 650 ft. to E line, 330 ft. to S line of NE NW Sur. 7, Por. 75-76-77—Location.
Los Olmos O. & G. Co.'s No. 53 Kelsey Bass, 250 ft. to E line, 555 ft. to S line of NE NW Sur. 7, Por. 75-76-77—Location.
Los Olmos O. & G. Co.'s No. 54 Kelsey Bass, 475 ft. to E line, 555 ft. to S line of NE NW Sur. 7, Por. 75-76-77—Location.
Los Olmos O. & G. Co.'s No. 55 Kelsey Bass, 700 ft. to E line, 555 ft. to S line of NE NW Sur. 7, Por. 75-76-77—Location.
R. A. Mitchell's No. 1 Kelsey Bass, 150 ft. from S and W lines of NW SE of Sur. 8, Subd. Porcions 75, 76, 77, Jurisdiction of Camargo—T.D. 212 ft.; standing.
J. P. Moore and C. B. Van Matre's No. 1 Seabury et al, 150 ft. from E line, 750 ft. from S line of Share 5, Subd. of W part of Porcion 75—T.D. 305 ft.; standing.
C. L. Sinclair's No. 2 Kelsey Bass, 150 ft. to S line, 1,050 ft. to W line of SW of SW of Sur. 8, Porcions 75, 76, 77—T.D. 434 ft.; standing.
Tilden & Jones' No. 1 E. Cuellar, 450 ft. to N line, 750 ft. to E line of Share 11, Porcion 75—T.D. 210 ft.; standing.
Tollen, Floyd & Warner's No. 1 Seabury, 450 ft. from S line, 814 ft. from E line of 80-ac. tract in Share 5, W part of Porcion 75—T.D. 389 ft.; set csg.
Wells et al's No. 1 Lansgraf, 150 ft. from N and E lines of SW of SW of Sur. 7, Porcions 75, 76, 77, Camargo—T.D. 387 ft.; being drilled by McCormick.

RIO GRANDE CITY POOL—STARR COUNTY

Mundy and others' No. 1 Salinas, 190 ft. to S and W lines of Blk. 12, Share C-38, Porcions 80 and 81, Camargo—T.D. 1,460 ft.; standing.

AVIATOR FIELD—WEBB COUNTY

O. W. Killam's No. 1 Garcia, Sur. 609—T.D. 1,932 ft; abd.

LAUREL POOL—WEBB COUNTY

Dyck Oil Co.'s No. 1 Garcia Villareal, 150 ft. from E line, 150 ft. from N line of NE of NW of Sur. No. 1,100—Comp. 75 bbls. hourly; T.D. 2,215 ft.
L. M. Kaiser's No. 1 Garcia & Villareal, 150 ft. to N and W lines of Blk. 2, Sur. 1,099—Location.
O. W. Killam's No. 1 Garcia & Villareal, 150 ft. to N and W lines of SE NE Sur. 1,110—Derrick.
Montex Oil Co.'s No. 1 B. Rosenberg, 150 ft. to S and W lines of Blk. 5, Sur. 271—T.D. 2,250 ft; abd.
Newton Drilling Co.'s No. 1 A. Garcia, 2,550 ft. from S line, 2,340 ft. from W line of Sur. No. 52, 2 miles SW of Carolina Texas Field—T.D. 2,080 ft.; standing.
Reward Oil Co., Sur. 768—Location, 1 mi. SW of Dyck.
Reward Oil Co.'s No. 1 Laurel, 245 ft. to S and E lines of Blk. 15, Sur. 271—Location.
Sal-Mar Oil Corp.'s No. 1 Vela, 660 ft. from NW and SW lines of Blk. 16, Sur. No. 1,011—Location.
Smidon Oil & Gas Co.'s No. 1 Vela, 450 ft. to S line, 150 ft. to S line of Blk. 14, Sur. 263—T.D. 2,130 ft; standing.
South Texas Oil Co.'s No. 5 Laurel, Blk. 9, Sur. 270—T.D. 500 ft.; drlg.
South Texas Oil Co.'s No. 9 Rosenberg, 811 ft. to E line, 150 ft. to S line, Blk. 16, Sur. 271—Rigging up.

CAROLINA-TEXAS POOL—WEBB COUNTY

Foster Barnsley's No. 2-F Webster, 165 ft. from N and E lines of SE of NW of Sur. No. 684—T.D. 2,588 ft.; rigging up to deepen.

ESCOBAS POOL ZAPATA COUNTY

The Texas Co.'s No. 16 Measles, 3,764 ft. to SE lines, 19,440 ft. to SW lines, Cerrito Blanco grant—T.D. 1,233 ft; drlg.
John Ward's No. 1 M. Garza estate, 150 ft. from NW and NE lines of Blk. 31, Douglas Subd. of Zorro ranch, Comitas grant—Location abd.

MIRANDO VALLEY POOL—ZAPATA COUNTY

Newton et al's No. 1 Flores, 200 ft. from W line, 1,300 ft. from N line of Sur. No. 249—T.D. 1,800 ft; abd.

VILLA POOL—ZAPATA COUNTY

Winch & Billings' No. 2 S. Benavides, 654 ft. to NE lines, 846 ft. to SE lines of Blk. 2 of Fansler & O'Hern Subd. of Villa grant—T.D. 1,500 ft; drlg.

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing or transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

Uncertain About What "Critical Production" of Pool Means

When "critical production" of an oil pool is referred to does it mean the same as estimated production and potential production? I never saw the term used until lately and I am not sure I understand exactly what it means.—L. N. F.

The term "critical production" was introduced into the language of oil by L. P. Garrett, president of the American Association of Petroleum Geologists, at the annual meeting of that organization in Oklahoma City last March. Mr. Garrett suggested its use as a substitute for "potential production," which is regarded as misleading, not only tending to create confusion, but calculated to give rise to a false feeling of security with respect to available oil underground. Mr. Garrett said in this connection:

"Within the last two years many of our members have given the question of how best to lower the lifting cost of oil a great deal of study, and the more we study it the more we find that the value of a pool or property is dependent upon the cost of lifting oil for the life of the property, and the work of geologists for the last two years is pointing to the fact that as new pools are discovered the industry may be much more concerned with the critical production that may be obtained from such pool or property than with its potential production for any one day or more.

"By critical production is meant the maximum amount of oil that can be produced from a pool or property per day under a systematic program that will give rise to the cheapest lifting cost for all oil in the pool, during its lifetime. Thus the new standard of estimating the available oil in a new field for any one period may substitute the term critical production as previously defined, for the much misunderstood term potential production, which has been the standard of the industry."

All the Geophysical Procedures Are Not Equally Applicable

In view of the fact that there are several different kinds of geophysical instruments, I want to ask if there is any choice among them. That is, will a torsion balance, a seismograph, a magnetometer or some one of the other geophysical instruments be of equal usefulness in exploring an area for oil? If a company contemplated investigating a certain territory how would it arrive at a choice as to what instrument to use?—T. T. E.

The question of deciding which of the geophysical methods of survey to use was discussed by E. DeGolyer and Dr. D. C. Barton, both eminent geophysicists, before the New York meeting of the American Institute of Mining and Metallurgical Engineers in 1931.

"There are four major factors to be considered," said Mr. DeGolyer, "in making a choice of geophysical survey methods, as follows:

"1. Usableness of the method. Can it be expected to give its own type of data in the area under consideration? 2. Cost (a) on a unit-area basis, (b) on a time-operating basis. 3. Time, speed of coverage of area. 4. Value of results expected to be obtained.

"It is obvious that a method must be usable to entitle it to any consideration whatever beyond experimentation. The electrical method could not be used in water or marsh areas. The gravimetric methods would be used only with great difficulty in similar areas, and the torsion balance is not usuable in mountain areas or areas of rough topography. The magnetic method would be altogether worthless in an area of igneous intrusions which were not of structural importance, such as the 'Golden Lane' of Mexico. The seismic methods are not usable in the present state of development in areas where the surface rocks are of very high geo-velocities, such as the Edwards Plateau of western Texas."

Doctor Barton emphasized four additional major factors which he said should be considered, as follows:

1. Purpose of the survey. Is it reconnaissance, detailed reconnaissance or detailed in character? Are the results to be used for checkerboarding, blocking or the location of tests? 2. State of knowledge of the general area available to the company which is meditating in regard to the use of geophysics. 3. Appropriation available. 4. Type of structures to be sought or mapped.

"In choice of a geophysical method," said Doctor Barton, "as in choice of a geologic method in mapping for oil structures, a less accurate but less costly reconnaissance method which will give the general features of the area and the larger and more easily evident structures is more efficient than a far more accurate but more costly detail method in the early work in an area of which practically nothing is known of the subsurface structure. On the other hand, in an area in which the major features of the structure are known and in which all the larger and more clearly evident structures have been discovered, the less accurate reconnaissance methods are useless."

Bypassing in Wells Produced by Pump from Repressured Sand

What is the best method of overcoming the bypassing of air and gas in wells that are being produced by the pump from a repressured sand? Two methods have been recommended to me. One is to maintain pressure against the sand by pumping against pressure maintained at the well head. Another is to maintain a higher fluid level in the well.—F. D. T.

Work done by engineers of the U. S. Bureau of Mines recently indicates that contrary to prevailing opinion, injected gas does not always travel up the structure. Their work has shown that gas injected into reservoir sands in California migrated to regions where a lower pressure condition existed, regardless of their structural position. Also in sands under hydraulic control injected gas does not spread fanwise from injection wells. Consequently, large bodies of sand between injection and producing wells are often bypassed and much oil may remain unrecovered unless means are taken to cause the gas to permeate the reservoir about injection wells more completely. There is less likelihood of gas bypassing oil if small volumes of gas are injected per unit of time through individual wells to stimulate production.

It is quite probable that conditions in fields will differ and what is said here must be considered as a means of preventing bypassing and the resulting higher gas-oil ratio in two pools in North Central Texas, the Cook Field of Shackelford County and the Turbeville Pool in Archer County, Texas.

When bypassing of gas threatened to produce too high a gas-oil ratio tubing levels first were raised progressively to allow a fluid column to remain constantly against the sand and act as a back pressure, but this did not produce the desired results.

Later a liner with a packer which forced all gas and oil to go downward to the bottom of the hole before its escape into the casing was tried and it was also unsatisfactory.

The desired results were accomplished eventually by leaving the working barrel at the normal position above the top of the sand and adjusting the length and speed of the stroke of the beam so that the producing formation never would be uncovered, but there always would be fluid at a sufficient elevation above the top of the sand to maintain constantly the desired pressure. This was in effect regulating the rate of production to the ability of the formation to deliver oil into the well.

The plunger displacement was adjusted to the point that was observed to give the lowest gas-oil ratio consistent with the production obtained.

As there are many conditions to consider in correcting this bypassing trouble it is believed the following bibliography of articles on the general subject of repressuring may be of value to you. It is taken from H. C. George's book, "Oil Well Completion and Operation," University of Oklahoma Press, Norman, Okla.

Foran, E. V., "Repressuring During Flush Stage." Petroleum Division Transactions, A.I.M.E., 1927.

Bell, A. H., "Summary of Repressuring Experiments in California Fields," Petroleum Division Transactions, A.I.M.E., 1927.

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Bell, A. H., and E. W. Webb, "Repressuring in the Sclover Zone at Seal Beach and the Effect in Proration," Petroleum Division Transactions, 1930.

Nickerson, C. M., "Repressuring in Depleted Oil Zones," Petroleum Division Transactions, A.I.M.E., 1930.

Hill, H. B., "Results of Air Repressuring and Engineering Study of Williams Pool, Putnam-Moran District, Callahan County, Texas," Technical Paper 470, Bureau of Mines, 1930.

American Institute of Mining and Metallurgical Engineers, Petroleum Development and Technology in 1931, Chapter 1.

Why Was It Called That?

RENO

Among the oil towns which sprang into meteoric existence in northwestern Pennsylvania following Drake's discovery was Reno, founded by C. V. Culver, who also organized the Reno Oil & Land Co. The town, beautifully situated on the Allegheny River between Oil City and Franklin, had a bank, newspaper, hotel and well laid out streets. Saloons were excluded. When the chain of oil country banks established by Mr. Culver collapsed in 1865 the Reno, Oil Creek & Pithole Railroad, within a mile of completion, went down in the smash and the pretty town which had got off to so good a start, suffered a blow from which it never recovered. Reno was named in honor of General Jesse L. Reno, who passed his boyhood in Franklin, graduated from West Point with George B. McClellan and Stonewall Jackson and fell in the battle of South Mountain in 1862.

Literature on Bottom-Hole Choke Theory and Operation Wanted

Could you refer me to some good articles explaining the theory and operation of bottom hole chokes?—E. L. W.

The following articles which have appeared in The Oil and Gas Journal should provide what you want: "Bottom Choke Decreases Gas-Oil Ratio," H. C. Otis, May 21, 1931, p. 64; "Development in Bottom-Hole Choking," J. S. Ross, March 3, 1932, p. 30; "Device Controls Flow at Bottom of Hole," C. P. Parsons, March 10, 1932, p. 87; "Use of Bottom-Hole Choke Aids Gas Well Production," March 17, 1932, p. 22.

PERSONAL PARAGRAPHS

George Henshaw, Jr., independent operator, is ill with paralysis, at his home in San Angelo, Tex.

* * *

Don Reese, geologist for the Sinclair Prairie Oil Company, Tyler, Tex., is on vacation in California.

* * *

H. D. Jackson, with the Wickett Estate, Chicago, spent the holidays with relatives in Fort Worth, Tex.

* * *

B. B. Blair, independent operator of Tulsa, has been in Houston, Tex., looking over the Gulf Coast wildcatting play.

* * *

H. E. Britzman, until recently advertising manager of the Rio Grande Oil Company, has been appointed director of sales.

* * *

D. W. Snow, geologist for Barnsdall Oil Company, Tulsa, is spending much time in Houston, Tex., making frequent airplane trips back and forth.

* * *

James Hutchinson, vice president and general manager of the Rio Bravo Oil Company, Houston, Tex., spent a week in New York City on business.

* * *

M. H. Lowrance, land man for the Sinclair Prairie Oil Company, Fort Worth, Tex., has returned from a visit to the home folks in Thayer, Kans.

* * *

L. Milne, assistant vice president of the Continental Oil Company, has returned to New York after a 10 days' trip to the company's headquarters in Ponca City, Okla.

* * *

Jack Halliburton, district manager for the Halliburton Oil Well Cementing Company, has been transferred from the East Texas Field to Conroe in Montgomery County, Texas.

* * *

E. H. Griswold, chief production engineer of the Continental Oil Company, has been designated as technical adviser to President Daniel J. Moran, and his headquarters changed to New York City.

* * *

The Dallas Electric Club has elected the following officers for the ensuing year: W. E. Holland, president; R. T. Shiels, first vice president; M. F. Sterett, second vice president; L. W. Tate, treasurer; and Beeman Fisher, secretary.

* * *

The Fort Worth Geological Society has elected the following officers for the ensuing year: Walter Berger, consulting geologist, president; R. H. Fash, Fort Worth Laboratories, vice president; and Lewis C. Roberts, Stanolind Oil & Gas Company, secretary-treasurer.

* * *

A. A. Lacasette, vice president of the Pennsylvania Lubricating Company, has been placed in charge of all marketing for the organization, with headquarters at 26 Broadway, New York. C. B. Karns, vice president, is now in charge of manufacturing and will continue to make his office in Pittsburgh, Pa.

* * *

W. R. Knowles, general superintendent of the field department; Edward Smith, superintendent of the chart department; and Frank A. Chase, inspector in charge of the turn-on department, have been retired by the East Ohio Gas Company. The three, with combined service of 83 years, retired on the same day and were tendered a testimonial dinner by their fellow-employes.

* * *

The New Mexico Oil Men's Protective Association has elected the following officers for the coming year: W. A. Nicholas, Roswell, president; M. W. Evans, Artesia, vice president; William Dooley, Artesia, secretary-treasurer. Others named on the executive committee are: B. A. Christmas, Lovington; C. D. Woolworth, Jal; Powhatan Carter and Harry Leonard, Roswell; Martin Yates, Jr., Artesia; and A. C. Brown, Hobbs.

D'Arcy Cashin, consulting geologist, Houston, Tex., and Mrs. Cashin, are spending the holidays in San Francisco, Calif., visiting relatives.

* * *

E. J. Nicklos, vice president of the Continental Oil Company, Ponca City, Okla., spent a couple of days in the Fort Worth, Tex., offices of the company during the week.

Men of the Industry

GEORGE W. STRAKE

A little over a year ago when almost everyone said there wasn't any oil at Conroe one man staked everything on the gamble there was, and won.

That man was George W. Strake, who, on December 13, 1931, stood on the derrick floor of his discovery well at Conroe and saw his visions fulfilled.

Mr. Strake, who was born in St. Louis, Mo., 38 years ago, has been connected directly or indirectly with the oil business for 13 years. Following his college days at St. Louis University, he took a job in March, 1919, with the Mexican Gulf Oil Corporation in Tampico, Mexico.

After a year with this company he resigned to work independently in leasing, royalties and drilling, but later in 1925, when oil activities in Mexico became slow he went to Havana, Cuba, where, until early 1927, he engaged in other business.

Returning to the United States, he settled in Houston, Tex., and occupied himself in leasing in South and East Texas and in parts of Louisiana. During this time he took several wildcat blocks, among which was the one, comprising some 8,500 acres, located southeast of the town of Conroe, Montgomery County, on which the discovery well of the Conroe Field was brought in. Mr. Strake tried unsuccessfully to interest several companies and operators and eventually decided to drill himself, starting his first test and discovery well in August, 1931.

Mr. Strake now is president of the Strake Oil Corporation, formed following the bringing in of the first well, and to that company was assigned the portion, comprising 4,375 acres, of the original block which soon afterward was turned over to the Humble Oil & Refining Company. Mr. Strake, who recently has incorporated as Strake Petroleum, Inc., retains extensive additional holdings in the Conroe district.

Henry Ley, geologist, Rio Oil Company, Fort Worth, Tex., has been visiting in Houston, Tex.

* * *

W. F. Brigance, in the credit department of the Frick-Reid Supply Corporation, Tulsa, has been transferred to Houston, Tex.

* * *

Paul Mills, independent operator, Tulsa, has been in Houston, Tex., where he has been watching wildcat developments.

* * *

C. C. Victory, of the land department of The Texas Company, in Tulsa, is recovering from a serious attack of pneumonia.

* * *

J. E. Gardner, of the Gulf Pipe Line Company, Fort Worth, Tex., has returned to his office after a six weeks' siege of flu and pneumonia.

* * *

Henry Zoller, of the Shell Petroleum Corporation, has returned to Tulsa in charge of the exploitation department in Oklahoma and Kansas.

* * *

Dr. D. B. Bow, assistant chief engineer of the Indian Territory Illuminating Oil Company of Bartlesville, Okla., was a visitor in Tulsa several days last week.

* * *

E. A. Wymann, district geologist in Kansas for Amerada Petroleum Corporation, new president of the Kansas Geological Society, is recovering from an attack of appendicitis.

* * *

W. H. Morrison, chief exploitation engineer of the Oklahoma-Kansas-Panhandle district of Shell Petroleum Corporation, has been ordered to The Hague, in Holland, for an indefinite tour of duty.

* * *

Joe Gordon, petroleum engineer for Black, Sivalls & Bryson, Inc., at Fort Worth, Tex., has moved to Houston, Tex. Gurney Peeples, district manager for the same company, Kilgore, Tex., is also moving to Houston.

* * *

Robert S. Ellison, president of the Stanolind Crude Oil Purchasing Company, Tulsa, has been visiting Casper, Wyo., Denver, Colo., and also Colorado Springs where his mother recently celebrated her eighty-sixth birthday.

* * *

W. J. Dykeman, Jr., division auditor for the Stanolind Oil & Gas Company, has been transferred from Fort Worth, Tex., to Tulsa, and C. J. Barstow, Fort Worth, has been promoted to fill the place left vacant by the transfer.

* * *

Earl Fields, manager of Peoples Natural Gas Company, Forest City, Iowa, has been transferred to Fairbury, Neb., as manager. His place has been taken by W. H. Rose, formerly at Omaha, Neb. The company is an operating subsidiary of Northern Gas & Pipe Line Company.

* * *

Fred Parks, district manager for the Bridgeport Machine Company, in East Texas, has moved to Wichita, Kans., from which point he will act as manager of branch stores for the company. Robert Horton, formerly of Breckenridge, Tex., takes Mr. Parks' place in East Texas, with headquarters at Kilgore.

* * *

Alfredo Castelletti and Albert Velani, associated with the Italian petroleum bureau, and Carlo Toschi, a contractor of New York City, who have been looking over the Mid-Continent oil fields, have gone to Texas to continue their survey. They began their tour at Oil City, Pa., and have been shown through the Eastern, Central West, Great Lakes, Mid-Continent and Texas areas by officials of the Standard Oil Companies of New Jersey, Ohio, Indiana and now will be escorted by Humble Oil & Refining Company officials. They will visit Mexico and then go to California and sail for the Orient and home.

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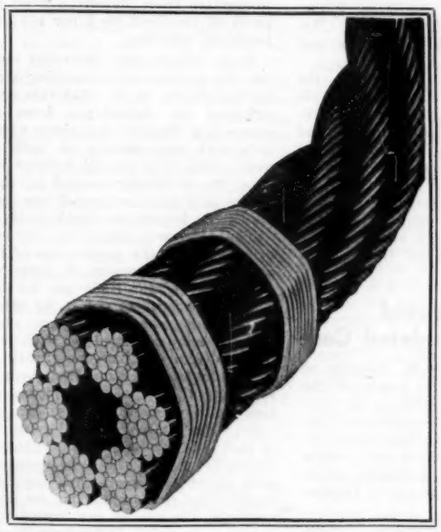

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NATURAL GAS DEVELOPMENTS

Supreme Court of Ohio Upholds State Commission

COLUMBUS, Ohio, Jan. 2.—The State Supreme Court has upheld the decision of the Public Utilities Commission in refusing to fix an emergency gas rate for the city of Cleveland pending establishment of a permanent rate in a case before the commission.

The city had asked the commission to fix emergency rates, reducing charges now being made. The East Ohio Gas Co. moved that the application be dismissed, contending the commission was without jurisdiction to hear and determine the application. The commission sustained the motion on the ground that it lacked jurisdiction. The city then appealed to the Supreme Court, which affirmed the commission's action.

The commission had withheld decision on the application of the city of Akron for an emergency rate, pending determination of a permanent rate, until the Supreme Court acted in the Cleveland case. As a result of the present decision, the Akron case has now been dismissed.

The Dayton Power & Light Co., subsidiary of the Columbia Gas & Electric Corp., has filed a petition in error in the Supreme Court seeking reversal of an order of the commission denying an increase in gas rates in Troy, Piqua, Washington C. H., Tippecanoe City, North Hampton, South Charleston and Wilberforce.

In denying the increase in rate, the commission applied the 39-cent state-wide gate rate which it had previously established in the case of the Columbus Gas & Fuel Co. The Dayton company, in its application for an increased rate, claimed it pays a gate rate of 45 cents.

The Columbus case also has been carried to the Supreme Court both by the Columbus company, which also is a Columbia subsidiary, and by the city of Columbus.

Certificates Approved in Consolidated Case

Federal Judge Edgar S. Vaught at Oklahoma City, Okla., has approved the issuance of at least $250,000 in receivership certificates of the Consolidated Gas Utilities Corp. and the Consolidated Gas Service Corp. The $250,000 was sought to pay interest on first mortgage bonds on which days of grace expired December 30.

Judge Vaught indicated he also thought the assets of the company would be further protected by the payment of about $40,000 interest on outstanding debentures. Sale of the receivership certificates also will make it possible for the companies to meet tax payments of about $40,000 falling due within 60 days.

Logan W. Cary, receiver, said the book value of the properties was about $26,000,000. Outstanding first mortgage bonds amount to $8,285,000.

MICHIGAN FRANCHISES

DETROIT, Mich., Jan. 2.—The councils in Shepherd, Alma and St. Louis have approved franchises offered to the voters which would give these towns natural gas. The Miller-McCloskey interests asking the franchises ask the Michigan Public Utilities Commission for a permit to build a line to the towns.

The people of Shepherd will vote on the franchise January 9, and the towns of Alma and St. Louis will vote sometime before the middle of January.

The Michigan Natural Gas Co. has applied for a permit to build a line to Ithaca, St. Louis and Alma.

Texas Railroad Commission Is Restrained On Its Panhandle Gas Field Order

AUSTIN, Tex., Dec. 30.—The Texas Railroad Commission has been restrained from enforcement of an order which closed a portion of the West Panhandle gas field to production until certain independent operators could obtain a market outlet for their gas.

The injunction was issued by a three-judge Federal court on application of the Texoma Natural Gas Co. and the Cities Service Co. and was signed by Joseph C. Hutcheson, Jr., United States circuit judge, and Duval West and Robert J. McMillan, Federal district judges.

The Texoma and Cities Service were granted a restraining order last June by the same court which prevented the railroad commission from requiring the companies to share their market outlet with operators in the field who have no market.

Text of Opinion

These suits seek injunction against an order of the commission closing in all of plaintiffs' gas wells in an area until a market outlet is provided for some of those same persons, and restricting the production from plaintiff's wells in other parts of the field to 4 per cent of their potential capacity.

It is alleged that the order was made for the purpose of compelling plaintiffs, by indirection, to do what this court had enjoined the defendants from directly compelling them to do, share their markets with the owners of wells having none; that it is invalid because both beyond the authority granted by the legislature, and because beyond any authority which the legislature could grant.

The order was entered as the result of hearings upon the application of Henderson and other owners of wells without market outlet for their gas for light or fuel, for permits to use it for other purposes. The order when made purported to have been grounded on a choice made by the defendants between granting stripping permits, which use they found would be wasteful, and shutting down production until the applicants for permits could obtain a market outlet for the use of their gas for light or fuel. This choice plaintiffs say is a choice between courses, each equally unwarranted, each equally illegal. The commission has no power to authorize the use of gas except for purposes nonwasteful. Defendants having expressly found that the use of gas for stripping purposes would be a wasteful use, the commission could not authorize it, nor could defendants any more, by imposing upon them the drastic penalty of having their wells closed in, force plaintiffs to share their market with others.

Hearing established incontrovertibly, indeed the evidence is without conflict, that plaintiff's properties were being operated in a wise, a prudent and a skillful manner; that no waste was being committed by plaintiffs when the order was entered, that none had been or would be committed. It showed that no other field in Texas was subjected to the treatment to which the order complained of subjected plaintiffs, the uniform limitation on gas production in all fields before that order having been 25 per cent and after that order, 25 per cent in all fields except those directly affected by it.

It showed that the plaintiffs in the two suits own 62 wells in the shut-down area, and 62 in the 4 per cent area; that under the order plaintiffs are limited in their takings from their wells to an amount less than one-half of the amount of their daily requirements for consumers in cities and towns in other states connected with their lines, and depending on them for their daily supply. That plaintiffs at the time of the order were not taking, and that they had never taken, any of the gas belonging to other persons, and more, that they have never taken the proportional part of the gas from the common gas pool which if the gas were allocated to each owner in proportion to acreage and open flow, they would be entitled to take.

Effect of Order

It was established in the same incontrovertible way that the purpose and effect of the order was not to prevent or diminish waste, but to force plaintiffs to purchase gas from wells having no market outlet. That it has its entire spring in the desire of defendants to force plaintiffs to share their markets, and in their belief, expressed at the hearing, that the entry of this order would "speed the day" when plaintiffs would yield to defendants' demands. That the theory advanced at this hearing that the commission had power to prevent plaintiffs from drawing any of their gas from the common reservoir as long as owners of other wells were unable, because of lack of market outlet, to draw from it, had been put forward only after and because of the injunction.

The evidence established that though in form the order was restrictive, it was in fact coercive, designed to operate in a penal way to force plaintiffs to purchase the gas which this court had found that that commission could not compel them to take under the mandate of the statute.

It has been often pointed out, this court has had occasion to declare it as to this commission, that it is not the motive or purpose informing and animating administrative bureaus, but the relation of what they do to the power they purport to exercise, which determines the validity or invalidity of their acts. It is not sufficient then, for plaintiffs to point to the fact that the endeavor of the defendants is, by shutting down their production, to compel plaintiffs to make terms with those for whose benefit the shutdown has been ordered. It must appear also that the defendants have no power to do the thing they are doing, either because the measures taken are not of the kind which the commission is authorized to employ, or because in degree they exceed what the public necessity requires.

Plaintiffs recognize this burden. They say that the purported order of the commission is wholly without authority of law; that it is merely the exercise by defendants of force majeure. That the statute under which they purport to act in terms limits the power of the commission to preventing waste of natural resources; directly declares that production may not be curtailed except where necessary to prevent waste and provides that "nothing in this act shall require the owner of any gas, and/or oil well to curtail the production thereof unless the same is being operated in such manner as to constitute waste as herein defined, or contributing to waste as herein defined."

They say, and the evidence sustains them, that the order was not designed to, nor does it have the effect, of preventing waste. Indeed, it is not claimed

(Continued on Page 78)

Natural Gas Consumption Off 16 Per Cent in 1932

Revenues from manufactured gas in the United States in 1932 aggregated about $413,250,000, representing a decrease of 5.1 per cent from the 1931 figure, according to Alexander Forward, managing director of the American Gas Association.

While total sales of manufactured gas to consumers registered a decline of 4.8 per cent, according to preliminary estimates of the association's statistical department, an outstanding exception to the general trend was the increase shown in the use of gas for house heating purposes. In 1931 sales of manufactured gas for house heating purposes were 19,908,100,000 feet but during 1932 this figure rose to 20,445,600,000 feet, an increase of 2.7 per cent in this class of business.

The decline in natural gas sales for domestic and commercial purposes was relatively small, amounting to less than 5.4 per cent. In keeping with general economic conditions, however, natural gas sales for industrial purposes registered a decline of about 15 per cent. In addition to this decline in ordinary industrial sales the amount of natural gas used for nonutility purposes, including manufacture of carbon black, and consumed in oil and gas field operations apparently declined some 22 per cent, with the result that the entire consumption of natural gas for all purposes during 1932 is expected to run about 16 per cent under the corresponding figure for 1931.

Natural gas customers in 1932 were only 1.1 per cent fewer than in 1931.

"The economic situation offers an easy mark for agitations for reductions in rates," said Mr. Forward, "although further reductions in revenues will, in most instances, imperial the public service."

"The American Gas Association, however, is fully alive to the situation," he continued. "We have set up a committee composed of foremost executives of the industry for a comprehensive national program, which is expected to prove of immense value in keeping our business stabilized and in extending an essential public service. Manufacturers of gas ranges and other appliances are active and alert. We are continuing our research program. The continued improvement and consequent insurance of safe and efficient appliances in the home and automatically controlled appliances in industry are some of the most apparent proofs. I think that the gas industry is alive to its future and to the needs of reviving industry."

Natural Gas Line Permit to Bay City and Saginaw

DETROIT, Mich., Jan. 2.—Permission to lay a natural gas pipe line from the central Michigan fields to the cities of Bay City and Saginaw has been granted by the Michigan Securities Commission to the Michigan Natural Gas Corp., headed by Bliss Keeler of East Lansing. The petition was filed last July and originally asked for the right to service the two cities and Flint, Pontiac and eventually Detroit. Hearings indicated that the natural gas reserve in Michigan was insufficient to serve the Detroit metropolitan area, so the grant has been limited only to the Saginaw valley cities.

The permit granted to the Michigan Natural Gas Corp, bears restrictions as to the price to be charged.

Representatives of the company have announced that they have entered into a tentative agreement with the Consumers Power Co. for the sale of natural gas for distribution in the two cities.

TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the questions is considered to be confidential.

Questions requiring a discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Preparation of Doctor Solution for Light Oil Treating

I would like to have your recommendations on the strength of doctor solution to use for the sweetening of straightrun and cracked gasoline, stating the approximate quantity of each chemical necessary to make the desired solution? We intend to introduce our sulphur by first dissolving it in a closed system and introducing it under pressure. Would like to have your comments on this—E. G.

The preparation of the doctor solution is usually made in the small refinery by directing exhaust steam into the caustic drum and running the stream into a 10 to 20-bbl. kettle, where the solution may be diluted to the required Baume gravity. The caustic solution is transferred to the doctor tank to be saturated with litharge. The quantity of litharge that will go into solution varies from 2 to 3½ per cent, depending upon the strength of the caustic soda. A satisfactory concentration of the caustic solution, as used by many refineries, is 12° to 14° Be.; the litharge being added in excess and the liquid agitated for several hours with steam or air and then permitted to settle until the solution is clear. The excess litharge will settle to the bottom to be drawn on when the next batch is prepared, the outlet for the doctor solution being located so that the solution may be drawn off without disturbing the sediment of litharge.

It is considered good practice to add the sulphur, for breaking out the gasoline after meeting the doctor solution, in solution form. The sulphur solution may be made outside of the system to be introduced as required or a very small part of the stream may be bypassed through a brimstone tower where it will dissolve enough sulphur. Such a tower is packed with enough brimstone to last for a considerable period and when the stream is once satisfactorily adjusted it will need little attention.

The solubility of sulphur in gasoline should not be overlooked because a slight excess may produce a bad corrosion test or introduce a condition favorable for poor color stability, the gasoline going off color during storage or upon short exposure to the sun. Sulphur is soluble in gasoline to the extent of approximately 0.4 per cent and the standard specification is 0.1 per cent, so enough analyses must be made, together with control tests to keep the quantity of sulphur that may be added under control. The required quantity of sulphur varies to a considerable extent with the type of product to be treated. Some light distillates are treated without any sulphur, obtaining the needed sulphur in the form of hydrogen sulphide from a part of the fresh distillate stream; in extreme cases several hundred pounds of sulphur are required per 1,000 bbls. of raw gasoline. The sweetening operation will proceed more satisfactorily and less chemicals will be required if the straightrun gasoline and the pressure distillates are treated with a weak caustic soda solution immediately after they are made. At this stage there is a large quantity of hydrogen sulphide present that may be easily removed, but if it is permitted to remain in the product while it is in the preliminary storage some oxidation may take place causing the formation of sulphur compound more difficult to remove; in addition there will be some corrosion of the tanks. It is advisable to treat the straightrun streams and the pressure distillate stream with the alkaline solution separately, but they may be properly combined for the sweetening process.

Origin of Bright Stocks Specifications and Use

Will you please define Bright Stocks, their origin, specifications and use?—T. G. A.

Bright stocks are what may be termed fully refined cylinder stocks. The cylinder stocks include those lubricating oils that are obtained when suitable crude oils, usually greenish and containing very little or no asphalt, are reduced with steam to a residue meeting high flash and high viscosity specifications. The first operation when making a cylinder oil is to distill off the lighter portions from the crude oil down to the lighter lubricating oils. Then the remaining portion is further reduced with large quantities of steam; this yields a distillate containing the grade of lubricating oils designated viscous neutrals. This operation gives a residue known as steam refined cylinder stock, having a flashpoint above 500° F., a fire test from about 550° to 700°, a high pour test 40° to 80°, and a viscosity from 80° to 250° at 210° F. The color is dark with a green cast. Oils of this class were originally used for the lubrication cylinders of steam engines and in other service where the high pour test was not objectionable.

When a demand was created for an oil with a clear bright color, high flash, high viscosity and low pourpoint the original bright stock process, known as cold settling, was devised. This consisted in blending the oil with a naphtha and then storing this mixture in a tank during the winter season for the purpose of sufficiently cooling the mixture to permit the amorphous wax, petrolatum, to settle to the bottom of the tank. The clear oil-naphtha solution was then withdrawn to be returned to a still, where the naphtha was distilled off. The residue, because of the improved color, was known as bright stock. This process required weeks and sometimes months before the desired cold test could be obtained; the modern method is to remove the wax from the naphtha solution of the oil, after it has been cooled to a very low temperature by refrigeration, by means of a centrifuge. The centrifugal process makes it possible to manufacture in a few hours bright stock of better quality than that which required several months to make by the original cold settling process.

The first step in the manufacture of bright stock is a proper reduction of the crude oil to the desired specifications, usually viscosity a flash test, then the residue is treated with sulphuric acid. The acid treated oil is thoroughly agitated with a special clay, settled, and filtered through a press. The filtered oil is next diluted with naphtha, about 65 per cent, and chilled to approximately 50 degrees below zero. The cold solution is then run through the centrifuge, operating at about 15,000 r.p.m., from which two streams constantly flow, one being the amporphous wax and the other the oil naphtha mixture. The naphtha solution is pumped to a still, where the naphtha is distilled off and the oil reduced to specifications. This is a very brief outline of one method. There are many details that have not been mentioned.

Bright stocks are marketed on a basis of 150 viscosity at 210°, with some meeting a viscosity specification of 190 at 210° F. The Pennsylvania grade may vary between 25 and 27 A.P.I. gravity, the Mid-Continent stock 22 to 24 A.P.I. Flashpoint from 550° to 650°, pourpoint from 0° F. to 25° F., color D to E with some at a lighter color than D, carbon residue from 0.9 to 2 per cent.

Bright stocks are used mainly for blending with lower viscosity oils to make the commercial oils. Some bright stock is used as a special lubricant.

Gum Inhibitor Pyrogallol Soluble Enough in Gasoline

I find that pyrogallol is practically insoluble in gasoline but seems to be very soluble in water or alcohol, neither of which will mix well with gasoline. I would like to know what solvent is usually used when blending pyrogallol with gasoline?—J. E. C.

Pyrogallol is a powerful absorbent for oxygen, an alkaline water solution being the standard reagent used in gas analysis for the estimation of oxygen. Under proper conditions it is an excellent substance to use for preventing the formation of gum in gasoline.

Pyrogallol, $C_6H_3(OH)_3$, a trihydric phenol, sometimes called pyrogallic acid, is readily soluble in water, and less soluble in alcohol and ether. It is soluble enough in alcohol or gasoline to act as a gum inhibitor. All inhibitors should be used in very small quantities in gasoline; because, if introduced in excessive proportions, they will frequently produce an effect quite the opposite from what was intended. That is, they sometimes act as catalysts to accelerate an undesirable reaction.

It is important when adding pyrogallol to gasoline that the gasoline shall be absolutely free from moisture; if the gasoline is not dry the reagent will, because of the fact that it is more soluble in water, tend to separate from the gasoline and go into solution in the water. There is another difficulty encountered when using pyrogallol, this has to do with the formation of colored compounds. With the absorption of oxygen a brown to black color is produced, in the presence of soluble ferric compounds a red color is formed, and with the ferrous compounds a dark blue.

The proportions in which pyrogallol is used as a gum inhibitor may vary from 4 to 16 pounds per 1,000 bbls. of gasoline, or at the rate of 0.8 to 3.2 pounds per tank car of 200 bbls.

Grease Making Requires Technical Skill and Scientific Control

What is the governing principle covering the manufacture of grease, including the aluminum soap greases? —A. J. E.

Greases are emulsions of oil and water stabilized by a mineral soap. The density of the grease increases with the kind and quantity of the mineral soap present, the better known greases containing either calcium, aluminum or lead. The chief function of a grease is that its heavier body and high flow resistance permits it to remain in place to furnish constant lubrication where an oil under the same conditions would flow away.

The essential factor for manufacture of a grease is the preparation of a suitable soap. A soap is made by the combination of a fat and an alkali. The most important fatty substances are the oleates and stearates; the common alkali metal used is sodium. The principle of the aluminum soap manufacture is that after the fat is saponified with sodium hydroxide the sodium is replaced with aluminum. Oleic or stearic acid may be combined with aluminum to form aluminum oleate or aluminum stearate. The stearate greases have low cohesive properties when blended with a low viscosity oil but the oleate blends with the same oil to form a grease which is highly cohesive.

The aluminum soap greases are distinguished by their light color and transparency, together with the fact that they stand up well at high temperatures. The greases made from the calcium soaps are in many respects similar to those made from the aluminum soaps.

There are many details that must be understood and mastered by the successful grease maker. Formerly the methods were those found satisfactory through long experience by the grease maker, who may not have known all about the physics and chemistry involved but who thoroughly understood the art. The modern grease plant is under the supervision of technically trained men who have the advantage resulting from analyses of all materials used and depend on laboratory inspection for the control of each step in the process. The chemical composition of the fats used is especially important. Conditions when mixing, such as agitation speed, proportions in which water is used together with the rate at which it is added, and temperatures are additional factors that have a very important influence on the quality of the product.

NEW AND IMPROVED EQUIPMENT

Motor Reduction Unit for Low-Speed Drives Offered

The Allis-Chalmers Manufacturing Co., Milwaukee, Wis., announces the development of a motor reduction unit for use where low-speed drives are required. A standard round frame type motor is

mounted directly on the gear reducer housing, thus forming a compact unit. Helical gears are used, which permits highest efficiency and quiet operation.

Standard speeds at the power takeoff are from 3.02 r.p.m. to 380 r.p.m., but lower speeds can be provided. A speed of 6.08 r.p.m. is obtained with the use of a 1,750 r.p.m. motor.

The bearings supporting the gear drives are ball or roller type. Lubrication is automatic and continuous, insuring an adequate supply of lubricant at all times. Standard units are arranged for floor mounting. Units can be supplied for wall, ceiling or vertical mounting. Any desired type of motor may be supplied—standard squirrel cage induction motor, wound rotor type, enclosed fan-cooled, explosion proof, or direct current.

Inherent advantages of separate motor and reducer construction are maintained, such as ease of maintenance, replacement of individual units, adaptability to change in ratios, etc.

Outside Joint Oil Heater Is Announced by Coen Co.

Among developments in the power and combustion industry is the eight-pass tubular outside joint oil heater offered by the Coen Co. of Los Angeles, San Francisco, Houston and New York. With this outside joint heater it is impossible for a leaky tube joint to permit oil to enter the steam space and find its way into the boiler, hot well or cooling tower. The tube sheets are rolled steel, two tube sheets at each end, with a space between them open to the air. Thus, any oil leak or steam leak will drain to the atmosphere.

In addition to the outside joint feature, an expansion joint is built into the shell to relieve expansion strains. With the tube arrangement the cold oil goes through the center tubes and is gradually heated as it approaches the outer row nearest the casing, which is at steam temperature. With this arrangement of oil passage there is no great pressure drop to cause a short circuit or leak from one pass to another. There is an added protection in the tongue-and-groove joints and gasket construction.

In operation steam is admitted to a cored annular passage at either end of the shell. From this passage it is distributed into the heater shell through a row of holes on the inner circumference. There is a steam connection at either end of the heater and drain connections at four points, two at each end. The heater may be used as a cooler by reversing the oil flow through the heater and circulating cold water through the steam space. Hot oil may be rapidly cooled in this manner from any temperature. These oil heaters are adaptable to either vertical or horizontal installations, and may be connected in any multiple combination.

Among the Equipment Houses

George C. McMullen has joined the Tyson Roller Bearing Corp., Massillon, Ohio, as manager of industrial sales. During 15 years with the Timken Roller Bearing Co., Mr. McMullen organized the industrial bearings division.

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The Buckeye Iron & Brass Works, Dayton, Ohio, has opened a sales branch and warehouse at 2403 South Ervay Street, Dallas, Tex., in charge of George R. Bardsley, district manager. The company manufactures valves, fittings and specialties for gasoline service station installations and for gasoline and oil pumps.

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Appointment of Chester A. Fulton as director of sales for the Davison Chemical Co. is announced by Henry E. Treide, president.

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The Consolidated Steel Corp., Ltd., of Los Angeles, Calif., has moved its San Francisco office to the Russ Building, 235 Montgomery Street. The Consolidated Steel Corp. represents Foster Wheeler Corp. on the Pacific Coast.

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Myron J. Czarniecki, formerly manager of tubular sales of the A. M. Byers Co., has been appointed general manager of sales. In announcing the promotion, H. W. Rinearson, vice president, stated that the move had been necessitated by the departmentalizing of sales activities due to the increased variety of wrought iron products developed by the company. For 68 years the company manufactured principally wrought iron tubular goods, but has recently broadened its activities to include plates, sheets, structurals, rivets, forging iron, welding fittings, etc.

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The Fisher Governor Co., Marshalltown, Iowa, has opened a direct factory sales and engineering office at 30 Church Street, New York. The office is in charge of O. M. Galiher, graduate engineer, A. W. Bailey and J. J. Belger.

Largest Bandwheel Power Is Made for Use in Texas

The Joseph Reid Gas Engine Co., Oil City, Pa., has completed and shipped for installation in Texas the largest bandwheel power ever built. The wheel is 32 feet in diameter. The 28-inch face permits the use of a belt as wide as 26 inches. The wheel is made of eight sections of rolled steel plates to which are electrically welded stiffening angles on the inside of the rim. Eight drivers of two members each are used, these being made of heavy angle iron. The wheel is supported and kept true by 48 spokes, 16 of them having turnbuckles through which necessary adjustments can be made.

The wheel is carried on a heavy shaft of special carbon steel shrunk into a cast iron base. The latter sets in a subbase grouted into the concrete foundation. If it is ever necessary to remove the power, the base to which the shaft is attached and on which all the moving parts are carried can be lifted off the subbase without damage to the concrete foundation.

A heavy semisteel sleeve fits over the shaft and two eccentrics and the wheel hub fits over this sleeve. The entire assembly is held in place by two large binding bolts. The top eccentric has a throw of 30 inches and the bottom one a throw of 36 inches.

Two Timken roller bearings are used, one at the bottom and one at the top of the shaft. The larger of these bearings is 19½ inches outside diameter and the other is 14½ inches.

The wheel hub and eccentrics include Reid patented dust covers which prevent dirt and sand from getting into the lubricating oil and between the bearing surfaces.

The drive from the wheel hub to the upper eccentric and from the upper to the lower eccentric is done with a wedge-locking device which can be readily adjusted. This feature has been used on Reid bandwheel powers for several years. It is a Reid patent as is the subbase.

Lubrication is provided by a mechanical circulating system which pumps the oil from a reservoir at the base of the power, to sight feed glasses over the wheel hub, from where it gravitates to all the bearing surfaces and returns to the reservoir. All the oil is strained through a gauze in the reservoir and a filter mounted at the top of the shaft. This system is augmented by an oil pump built into each eccentric which aids in returning the oil to the power base.

Three heavy steel strain rods are attached to the top of the power shaft. The other end of each is attached to concrete anchors in the ground. These take care of any side pull on the upper end of the shaft.

The connections for attaching the wells to the power consist of two steel plates bolted to the eccentric ring and to these are attached, with a 2-inch steel pin, two straps forming a clamp for the pull rod.

An idler, or belt-tightener, is furnished for use between the power and the engine to take care of the stretch and alignment of the belt. The frame of this is made of steel channels and cast iron. A carriage of cast iron travels on the frame and carries a 24-inch diameter, 28-inch face pulley with Timken roller bearings. The power weighs 21,300 pounds, and the belt tightener weighs 1,780 pouds.

The Reid company has been building bandwheel powers with 14, 16, 18, 20 and 24-foot diameter wheels for years and there are thousands of them in the oil fields where several wells are pumped from one power plant. This larger power is capable of transmitting 100 horsepower and will be used to pull a group of wells, each about 3,000 feet deep.

GOULDS ACQUIRES HYDROIL

Norman J. Gould, president of Goulds Pumps, Inc., has announced the acquisition of the Hydroil Corp., of Lebanon, Ind., manufacturer of oilpurifying apparatus. The Lebanon plant is being discontinued and the business and equipment are being transferred to the Seneca Falls plant of the Gould company. D. B. Clark, vice president of Hydroil, and W. P. Alexander, factory and field representative, will join the Gould organization, which will continue to manufacture the Hydroil centrifugal purifying machines at Seneca Falls.

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The Oxweld Extensometer type TM-3 is described in an illustrated booklet of seven pages, published by the Linde Air Products Co., 30 East Forty-second Street, New York.

Work on Pipe Line Made Simpler by Adams Jacks

Two new jacks for use on pipe line work have been introduced by the Adams Manufacturing & Engineering Co., 2068 Belgrave Avenue, Huntington Park, Calif. They are designed for simplicity and economy in both new pipe line construction and repair work.

The Model "C" jack is hydraulically operated and requires only one man to

operate. It handles any size pipe up to 16-inch and can be used either in the trench or on top of the ground. With a 10-inch lift it will raise or lower pipe the distance required in stages by holding the load with chains on hooks attached to the frame while the stroke is being changed. Being well balanced and light in weight, it is easily handled. It eliminates costly delays and is especially

adaptable to lining up for welding, for cleaning, painting and overhead welding, and for all general repair work.

The Model AA jack will raise or lower pipe up to 12 inches in diameter in one operation. This type is ratchet-operated and requires only two men to handle, set up, carry along the line and operate.

Both models are made to order in larger sizes and full information regarding them may be obtained from the manufacturer.

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Bulletin No. 1,203, issued by the American Instrument Co., 774 Girard Street, N. W., Washington, D. C., describes a portable temperature-control unit to convert any available container into an accurate constant-temperature bath. Advantages are said to include flexibility of application, ease of setting at desired temperature and accuracy of control obtained.

Oklahoma-Kansas and Eastern Monthly Pipe Line Report

OKLAHOMA-KANSAS

Pipe Line Statement for September Runs

Company—	Month (bbls.)	Dly. av. (bbls.)
Gulf P. L. Co.	1,424,500	47,482
Texas P. L. Co.	587,624	19,587
Empire P. L. Co.	1,705,797	56,860
Magnolia P. L. Co.	934,883	31,163
Cosden P. L. Co.	584,001	19,467
Stanolind P. L. Co.*	2,475,000	82,500
Oklahoma P. L. Co.	1,661,519	55,384
Other lines	5,280,000	176,000
Total Sept.	14,653,324	488,444
Total August	15,789,838	509,349
Difference	1,136,514	20,905

Shipments

Gulf P. L. Co.	1,366,517	45,551
Texas P. L. Co.	805,177	26,839
Empire P. L. Co.	1,896,037	63,168
Magnolia P. L. Co.	888,596	29,620
Cosden P. L. Co.	573,942	19,131
Stanolind P. L. Co.	3,360,000	112,000
Oklahoma P. L. Co.	1,649,568	54,986
Other lines	5,388,000	179,600
Total Sept.	15,926,837	530,895
Total August	17,900,987	577,452
Difference	1,974,150	46,557

Stocks

Sinclair Oil Marketing Co.	33,195,000
Gulf P. L. and Gypsy Oil Co.	7,562,928
The Texas Company	1,082,962
Empire Pipe Line Co.	4,742,684
Mid-Continent Petroleum Corp.	2,404,811
Stanolind Crude Oil Pur. Co.	14,767,000
Magnolia Petroleum Co.	7,791,913
Oklahoma Pipe Line Co.	1,772,377
Carter Oil Co.	2,954,114
Other lines	18,083,000
Total September	94,356,789
Total August	94,931,948
Difference	575,159

EASTERN PIPE LINE REPORT FOR MONTH OF OCTOBER

Runs From Wells

In the following table will be found the receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky, Illinois, Indiana and Michigan for October and November:

	Oct., 1932	Nov., 1932
Nat. Transit	201,405.14	186,697.73
S. W. Pa. P. L.	58,914.82	56,303.64
Eureka P. L.	257,681.27	227,719.77
Buckeye P. L. (Macksburg)	222,134.39	221,232.82
Buckeye P. L. (Cleveland)	11,013.22	9,299.53
Buckeye P. L. (Lima, etc.)	72,758.52	60,705.25
Indiana P. L.	2,062.26	1,368.26
Stoll Oil Ref.	41,043.23	30,299.73
Bradford Trans.	390,401.42	381,443.13
Ashland Ref.	129,193.40	122,303.64
N. Y. Transit	34,818.56	33,248.55
Tide Water P. L.	23,442.49	23,785.36
Pure Oil	599,919.52	463,657.33
Total	2,044,788.83	1,816,064.74
Daily average	65,960.32	60,602.16

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for October and November:

	Oct., 1932	Nov., 1932
Nat. Transit	542,464.94	502,396.97
S. W. Pa. P. L.	392,799.58	444,753.50
Eureka P. L.	300,410.16	249,230.42
Buckeye P. L. (Macksburg)	263,102.67	246,783.10
Buckeye P. L. (Cleveland)	1,901.45	1,463.62
Buckeye P. L. (Lima, etc.)	1,433,040.72	1,409,439.45
Indiana P. L.	946,219.98	957,560.92
Bradford Trans.	451,684.36	471,369.30
Southern P. L.		39,328.54
Tuscarora	174,917.30	160,075.90
N. Y. Transit	189,793.67	190,178.82
Northern P. L.		125,955.13
Tide Water P. L.	419,839.32	381,447.02
Pure Oil	647,452.89	508,320.53
Total	5,763,627.04	5,688,803.22
Daily average	188,504.09	189,626.77

Gross Stocks

The gross stocks held by various pipe lines of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky at the close of October and November:

	Oct., 1932	Nov., 1932
Nat. Transit	718,643.87	653,197.76
S. W. Pa. P. L.	325,982.63	285,254.12
Eureka P. L.	925,300.40	898,267.48
Buckeye P. L. (Macksburg)	286,984.63	288,885.92
Buckeye P. L. (Cleveland)	31,103.03	33,101.01
Buckeye P. L. (Lima, etc.)	2,527,710.50	2,492,210.50
Indiana P. L.	504,053.36	495,619.45
Brad. Trans.	346,855.74	321,278.39
Southern P. L.	272,979.30	231,099.17
Tuscarora	8,730.40	8,833.80
N. Y. Transit	94,416.84	100,309.38
Northern P. L.	225,665.94	220,986.55
Tide Water P. L.	587,026.57	558,704.04
Pure Oil	567,156.96	568,451.98
Total	7,421,620.24	7,116,200.05
Decrease	473,801.48	305,420.19

Grades of Oil

The following table shows the amount of the different grades of oil held by the eastern pipe lines at the close of October and November, showing gross stocks of the above fields:

	Oct., 1932	Nov., 1932
Pennsylvania	2,939,526.10	2,752,920.73
Lima	441,182.47	425,365.89
Kentucky	9,786.51	
Mid-Continent	3,516,124.22	3,432,437.70
Illinois	4,647.37	3,999.77
Michigan	510,352.97	502,475.96
Total	7,421,620.24	7,116,200.05

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1929	1930	1931	1932
Jan.	51,749	75,907	53,939	53,501
Feb.	51,833	79,256	55,163	55,498
Mar.	54,252	76,688	54,331	57,199
April	58,444	84,536	54,914	57,348
May	59,902	70,546	53,344	59,105
June	58,833	75,430	54,110	64,371
July	66,087	68,921	50,723	63,402
Aug.	66,087	54,291	51,503	67,676
Sept.	67,315	56,595	61,345	65,423
Oct.	76,033	58,179	65,595	65,960
Nov.	74,831	52,332	59,819	60,602
Dec.	74,561	53,999	61,835	

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1929	1930	1931	1932
Jan.	165,721	217,623	175,369	186,651
Feb.	159,387	224,355	183,494	169,856
Mar.	161,474	228,846	185,508	188,793
April	169,737	241,845	191,450	202,036
May	184,281	248,383	199,247	201,404
June	185,404	234,401	221,155	201,632
July	194,763	207,094	211,632	202,859
Aug.	194,946	205,506	224,166	187,839
Sept.	201,214	193,999	217,537	170,524
Oct.	191,367	157,675	210,831	188,504
Nov.	202,743	146,638	196,425	189,626
Dec.	186,257	143,001	176,241	

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields, including oil received from other lines at the close of each month for the past three years:

	1930	1931	1932
Jan.	13,220,045	11,831,092	9,023,914
Feb.	13,991,561	11,506,489	8,974,350
Mar.	13,247,317	11,012,162	8,802,192
April	13,233,961	11,044,481	8,908,661
May	13,052,953	10,728,239	8,835,726
June	13,396,855	9,903,349	8,732,724
July	13,268,562	9,569,849	8,176,956
Aug.	13,047,051	9,192,457	8,128,576
Sept.	12,813,018	8,492,431	7,895,421
Oct.	12,437,453	8,417,694	7,421,620
Nov.	11,851,380	8,830,386	7,116,200
Dec.	11,751,952	9,119,032	

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks, Dec. 1	505,206.51
Runs from wells	323,094.91
Other receipts	57,475.69
Regular deliveries	313,135.70
Other deliveries	61,142.69

The amount of Illinois oil run by the Tide Water Pipe Co. in November was 23,785.36 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

1932—	Runs	Deliveries
November	346,880.27	333,351.23
1931—		
January	468,429.04	669,573.19
February	429,284.54	461,262.85
March	424,638.23	356,663.26
April	421,814.98	282,532.65
May	433,231.80	322,513.95
June	510,805.78	320,258.13
July	520,009.38	289,219.05
August	476,623.56	393,231.06
September	492,183.83	323,012.50
October	498,124.13	325,834.95
November	470,302.63	281,258.48
December	515,771.28	306,623.19
1932—		
January	500,177.12	246,634.10
February	482,561.50	186,010.30
March	565,538.70	270,617.75
April	461,920.92	285,817.98
May	521,884.64	279,859.88
June	501,378.26	263,703.70
July	466,636.89	284,537.18
August	476,095.53	307,325.89
September	436,529.00	329,994.39
October	332,680.67	352,620.34

Tide Water Pipe Co., Ltd., also delivered in November 93,067.78 bbls. Oklahoma oil.

Average Daily Imports of Crude and Refined Oil at Principal United States Ports

Average barrels per day in 1931-32—	Atlantic Ports: Baltimore	Boston	New York	Philadelphia	Others	Total	Gulf Coast Ports: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
November	48,033	28,800	51,667	28,600	12,967	170,067	3,933	10,833	3,033	1,367	19,166	189,233
December	20,258	16,806	121,807	31,645	34,258	224,774	1,968	4,355	.....	.....	6,323	231,097
1932—												
January	19,161	8,161	104,065	24,194	34,903	190,484	4,871	7,226	2,096	1,484	15,677	206,161
February	32,483	16,517	128,483	28,862	34,552	240,897	2,034	5,207	4,310	1,379	12,930	253,827
March	25,806	10,516	167,806	38,677	48,129	290,935	5,936	39,774	.....	1,516	47,226	338,161
April	37,167	13,467	158,233	38,733	39,400	292,000	6,767	44,600	2,167	3,333	54,867	346,867
May	31,161	2,065	170,226	50,774	14,935	269,161	903	710	4,194	1,516	7,323	276,484
June	30,900	11,700	199,300	22,733	29,900	294,533	.....	.....	12,867	.....	12,867	307,400
July	2,613	2,161	62,968	14,935	2,129	84,806	.....	.....	.....	.....	.....	84,806
August	3,323	2,161	72,678	25,613	2,098	105,871	.....	.....	.....	.....	.....	105,871
September	5,100	2,200	57,900	12,167	10,066	87,433	.....	.....	.....	.....	.....	87,433
October	14,033	.....	72,193	30,645	7,129	124,000	.....	.....	.....	.....	2,000	126,000

Average Daily Receipts of California Crude and Refined Oil at Atlantic and Gulf Ports

Average barrels per day in 1931-32—	Atlantic Ports: Baltimore	Boston	New York	Philadelphia	Others	Total	Gulf Coast Ports: Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	Total all ports
November	1,000	.....	22,800	11,567	.....	35,367	.....	.....	.....	.....	2,366	38,733
December	3,161	.....	22,484	8,839	6,032	40,516	.....	.....	.....	.....	7,742	48,258
1932—												
January	3,871	1,710	14,483	3,774	5,710	29,548	.....	.....	.....	.....	.....	29,548
February	3,069	.....	9,103	4,862	.....	17,034	.....	.....	.....	.....	2,483	19,517
March	1,516	.....	6,065	.....	.....	7,581	.....	.....	.....	.....	.....	7,581
April	3,500	.....	19,333	3,867	4,833	31,533	.....	.....	.....	.....	.....	31,533
May	2,161	.....	15,226	18,774	3,871	40,032	.....	.....	.....	.....	.....	40,032
June	2,500	.....	17,333	3,933	833	24,600	.....	.....	.....	.....	.....	24,600
July	2,323	.....	22,226	8,677	8,935	42,161	.....	.....	.....	.....	.....	42,161
August	4,452	.....	22,484	7,548	7,677	42,161	.....	.....	.....	.....	.....	42,161
September	2,900	.....	5,000	11,633	7,967	27,500	.....	.....	.....	.....	.....	27,500
October	2,387	1,226	14,452	9,355	9,193	36,613	.....	.....	.....	.....	.....	36,613

Gross Production of Crude Oil in the United States for 12 Months

(In Barrels of 42 Gallons)

		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mts.	Eastern	Total
1931—										
October:	Month	15,651,983	12,951,893	30,725,173	3,177,066	1,172,389	1,822,255	2,797,597	3,900,000	72,198,356
	Daily average	504,903	417,803	991,134	102,486	37,819	58,782	90,247	125,807	2,328,979
November:	Month	14,997,700	16,430,730	28,860,561	3,131,670	1,130,700	1,851,577	2,706,390	3,639,000	72,748,328
	Daily average	499,923	547,691	962,018	104,389	37,690	61,719	90,213	121,300	2,424,946
December:	Month	15,560,984	16,598,299	27,767,651	3,198,642	1,082,148	1,971,817	2,816,759	3,645,000	72,641,300
	Daily average	501,967	535,429	903,860	103,182	34,908	63,607	90,863	117,581	2,343,268
1932—										
January:	Month	15,532,141	13,664,149	28,409,838	3,170,587	1,101,616	1,792,398	2,444,164	3,566,000	67,680,893
	Daily average	501,037	440,779	851,930	102,277	35,536	57,819	78,844	115,032	2,183,255
February:	Month	14,616,862	11,806,190	23,858,375	2,838,839	1,008,662	1,617,087	2,420,224	3,294,000	61,460,139
	Daily average	504,030	407,110	822,703	97,891	34,778	55,762	83,456	113,586	2,119,315
March:	Month	15,575,915	12,998,796	26,162,647	3,042,929	1,062,897	1,703,145	2,617,392	3,552,000	66,716,721
	Daily average	502,449	419,316	813,956	98,159	34,287	54,942	84,432	114,613	2,152,152
April:	Month	15,524,444	12,718,020	26,362,851	2,974,080	1,048,620	1,858,957	2,525,040	3,684,000	66,696,012
	Daily average	517,481	423,934	878,762	99,136	34,954	61,965	84,168	122,800	2,223,200
May:	Month	15,575,741	13,169,420	27,328,472	3,038,930	1,064,602	2,012,701	2,600,683	3,809,000	68,599,549
	Daily average	502,443	424,820	881,564	98,030	34,342	64,926	83,893	122,871	2,212,889
June:	Month	14,118,970	12,757,230	26,161,092	2,837,179	1,022,970	1,857,433	2,416,680	3,699,000	64,870,554
	Daily average	455,451	425,241	872,036	94,573	34,099	61,914	80,556	123,300	2,162,352
July:	Month	14,627,550	13,030,571	26,946,714	2,906,805	1,060,386	1,933,757	2,554,648	3,640,000	66,700,434
	Daily average	471,856	420,341	869,249	93,768	34,206	62,379	82,408	117,419	2,151,627
August:	Month	14,839,951	12,743,666	26,320,708	3,046,959	1,062,897	1,870,764	2,413,536	3,791,000	66,589,481
	Daily average	478,708	411,086	845,184	98,289	34,287	60,347	77,856	122,290	2,148,047
September:	Month	14,351,140	11,705,580	27,366,515	2,955,750	1,019,250	1,929,161	2,289,300	3,730,000	65,346,696
	Daily average	478,351	390,186	912,217	98,525	33,975	64,305	76,310	124,333	2,178,223
Total 12 months		180,973,381	160,574,544	324,770,597	36,319,439	12,837,037	22,221,052	30,602,413	43,950,000	812,248,463

Texas Gross Production Report for Third Quarter, 1932

Name and address—	Barrels	Value
A		
A. & M. Petroleum Co., El Paso	782.72	508.77
A. & P. Production Co., Houston	16,872.37	14,046.67
A. C. F. Oil Co., Wichita Falls	8,553.84	8,282.78
Aarco Oil & Gas Co., Baltimore, Md.	6,499.25	6,383.76
Abercrombie, J. E., Co., Houston	111,253.95	94,516.90
Abernathy & Kirkpatrick, Tyler	15,083.69	14,782.03
Abraham, Earl, Bridgetown	1,244.57	1,154.11
Acme Oil Co., Longview	9,892.98	9,796.12
Acorn Oil Co., Beaumont	4,666.59	3,771.16
Ada Belle Oil Co., Batson	16,386.20	13,140.36
Adams & Lyles, Lockhart	57,698.57	55,852.39
Adams, Harry, Co., Midland	24,938.63	22,703.62
Adams, T. C., Bethany, La.	18,078.97	17,717.38
Adams & Cyr, Wichita Falls	500.45	424.60
Adams, Dr. W. B., Wichita Falls	294.19	279.47
Adams & McGahey, Amarillo	14,212.20	12,595.70
Adams & Prince, Amarillo	10,765.03	8,582.74
Adams & Rowe, Inc., Shreveport, La.	4,616.07	4,523.75
Adamson, Fely, Jr., Tulsa, Okla.	137.00	154.25
Adamo Oil Co., Brownwood	349.00	316.60
Alamosa Oil Co., Amarillo	4,201.33	2,619.05
Alaska Petroleum Corp., Amarillo	1,024.63	796.70
Albany National Bank, Albany	392.11	359.38
Albany Oil Co., Breckenridge	3,617.20	3,472.50
Albright & Tidnell, Graham	975.42	682.79
Alco Royalty Corp., Tulsa, Okla.	26,418.41	25,890.04
Allbritain, F. J., Markley	859.48	674.70
Alma Petroleum Corp., Oklahoma City, Okla.	53,320.88	51,818.59
Allied Oil & Gas Co., Laredo	177,548.58	142,038.87
Almeda Oil Corp., Luling	9,106.12	8,923.62
Alpha Petroleum Co., Houston	153,146.84	130,213.81
Alpine Oil & Development Co., Alpine	3,576.98	2,300.99
Amada Oil Co., Dallas	30,712.63	16,565.62
Ama-Gray Oil Co., Pampa	11,985.00	9,468.15
Amatex Petroleum Co., Tyler	8,637.62	8,464.87
Ambassador Oil Corp., Fort Worth	3,826.10	3,447.70
Amerada Petroleum Corp., Tulsa, Okla.	349,067.89	326,956.82
American Maracaibo Co., New York, N. Y.	72,752.25	47,877.44
American Liberty Oil Co., Dallas	292,839.57	235,823.61
American Refining Properties, Wichita Falls	27,219.07	19,589.52
American Refining Properties (RMW), Wichita Falls	1,323.74	1,262.53
American Refining Properties (MJB), Wichita Falls	4,143.61	3,315.60
American Refining Properties (NBC), Wichita Falls	397.53	397.53
American Refining Properties (WMP), Wichita Falls	757.52	621.96
Ames, E. W., et al, Marshall	346.47	340.50
Amicable Life Insurance Co., Waco	318.00	127.20
Anchor Oil Producing Co., Dallas	427.11	292.23
Anderson, A. R., et al, Amarillo	528.03	489.86
Anderson O. T., and C. A. Daubert, et al Olney	3,382.71	2,741.05
Anderson & Co., Inc., and Cameron Anderson Rusk Co., Properties, Inc., Fort Worth	16,494.23	16,164.31
Anderson & Charlesworth, McCamey	3,315.07	2,154.79
Anderson-Drewery Corp., Cisco	5,846.00	5,729.16
Andrews, Denny, Breckenridge	309.00	261.97
Andrews Petroleum Corp., New York	2,826.83	2,387.36
Antelope Creek Oil & Gas Co., Amarillo	2,576.51	1,470.74
Anthony, J. N., Burkburnett	871.96	819.64
Apollo Oil Co., San Angelo	5,706.53	3,807.47
Arab Gasoline Corp., Eastland	810.86	769.05
Arco Oil Co., Wichita Falls	19,072.49	14,400.93
Arcadia Refining Co., Tyler	79,050.55	77,403.04
Argus Oil Co., Austin	100.60	53.79
Arkansas Drilling Co., and B. T. Fitzhugh, receiver, Longview	2,557.00	3,485.86
Arkansas Fuel Oil Co., Shreveport, La.	707,280.32	687,170.41
Arkansas Louisiana Pipe Line Co., Shreveport, La.	1,406.83	1,334.93
Arkansas Production Co., Longview	9,406.00	8,109.57
Armstrong, W. J. (Armstrong & Wallace), Cisco	692.50	688.36
Arrow Head Oil Co., Dallas	693.17	643.72
Arrow Refining Co., Fort Worth	4,703.86	4,609.78
Art, J. L., Wichita Falls	235.32	233.22
Artex Oil Co., Wichita Falls	670.53	592.77
Aston Oil Co., Oklahoma City, Okla.	18,801.39	18,425.94
Atkinson & Sandefer Oil Corp., Breckenridge	14,324.50	13,807.24
Atlantic Oil Producing Co., Dallas	1,396,536.88	1,303,420.81
Atlantic & Pacific Oil Co. (L. E. Waghalter, receiver), Tyler	4,633.76	4,541.08
Atlas Production Co., Burkburnett	1,267.49	1,108.73
B		
Badger Oil Co., Amarillo	14,924.80	13,118.34
Bagby, L. H., trustee, Tyler	4,675.98	4,582.46
Bailey, Carl B., Wichita Falls	7,325.57	7,125.52
Bailey & Trimble, El Dorado, Ark.	12,066.54	11,825.20
Baker, J. A., Breckenridge	516.70	458.53
Baker, James Blair, Jr., and C. F. Camp, trustees, Wichita Falls	980.89	844.25
Baker, James Blair, Jr., and C. F. Camp, trustees, Wichita Falls	10,932.79	9,678.65
Baker, J. A. and Mollie R., Breckenridge	4,909.00	4,570.38
Baker, Mollie B. and Fred R., Breckenridge	464.00	464.64
Baker, J. R., Jr., "F" Lease, Wichita Falls	2,284.67	2,027.27
Baker, J. F. and H. E., Breckenridge	2,832.66	2,663.40
Baker & Pardue, Breckenridge	12,753.85	11,181.95
Baldwin, F. C., et al, Inc., Fort Worth	4,051.93	3,610.29
Baldwin-Sultan Oil Co., Walters, Okla.	4,565.74	4,474.43
Barbara Oil Co., Chicago, Ill.	786.62	781.92
Barnes, J. B., Electra	4,577.14	4,386.78
Barrett, Harry L., Ponca City, Okla.	8,133.20	7,970.53
Barnsdall Oil Co., Tulsa, Okla.	251,201.59	240,148.73
Bartlett Production Co., Rockdale	297.72	200.87
Bashara Oil Co., Houston	591.52	474.82
Bass & Dillard, Wichita Falls	5,017.19	4,927.82
Bates, R. P., Tulsa, Okla.	4,352.86	4,265.80
Baylies, A. A., Fort Worth	696.18	661.36
Bay Oil Corp., Tulsa, Okla.	100,034.74	98,034.01
Bazzoon, G. A., Vernon	205.52	184.97
Beams, Drew, Abilene	1,403.27	1,320.25
Beard, J. G., Duncan, Okla.	42,640.74	41,787.64
Beggs, George, strip, Fort Worth	1,966.56	2,446.45
Bell, J. R., et al, Fort Stockton	1,400.78	735.41
Bell & Graddy, Inc., Dallas	4,674.04	4,580.56
Bell Oil & Gas Co., River Bed Acct., Tulsa, Okla.	13,526.93	11,801.33
Belrice Oil Co., Dallas	5,685.84	4,916.30
Bettison, Hillary N., San Antonio	4,018.54	3,938.19
Bezata Oil Co., San Antonio	744.13	547.83
Biel, William A., Von Ormy	77.00	60.00
Big Indian Oil & Dev. Co., The, Dallas	11,701.59	11,467.56
Big Indian Syndicates, Dallas	29,199.24	28,615.24
Big Lake Oil Co., Pittsburgh, Pa.	1,253,904.28	1,215,378.10
Biggs Oil & Gas Co., McKinney	938.05	938.05
Big State Oil Corp., Houston	1,534.65	1,394.33
Bill & Dave Oil Corp., Shreveport, La.	5,529.21	5,258.62
Bishop Corp., San Francisco, Calif.	20,736.23	20,321.51
Bishop, M. E., and T. A. King, Brownwood	92.53	78.51
Black, M. H., et al, Fort Stockton	3,323.05	2,007.10
Black, Harry W., Peoria, Ill.	7,551.77	7,400.72
Black, W. A., Midland	657.18	548.01
Black Cat Oil Co., Electra	734.06	704.70
Blackstock Oil Co., Oklahoma City, Okla.	13,059.19	12,079.80
Blackwell Oil & Gas Co., The, Cushing, Okla.	56,113.55	54,989.29
Black & Dittman, Fort Stockton	1,363.20	755.56
Black-Knight Co., Peoria, Ill.	7,565.64	7,414.31
Black & Stroube, Dallas	5,337.56	5,067.22

Name and address—	Barrels	Value
Black Nine Oil Co. (W. A. Reid, trustee; successors to Developers Oil & Gas Co., Wichita Falls	476.37	476.37
Bluebonnet Oil Co., Wichita Falls	243.52	202.38
Boardman-Ulrich, Corsicana	1,137.00	1,091.52
Bohner, C. F., Kansas City, Kans.	99.66	86.12
Bohner, C. J., et al, Burkburnett	8,912.12	8,443.84
Bohner, Crenshaw & Whitehill, Burkburnett	6,787.74	6,112.08
Bohner, C. J., Oil Corp., Burkburnett	18,627.53	17,031.92
Boller, C. W., Wichita Falls	16,341.19	15,590.42
Bolin, D. H., trustee, Graham	5,911.14	5,338.45
Bolin Lindsay, or R. W. Lindsay Drilling Co., Graham	40,118.71	40,118.71
Bond, J. B. (Bond & Johnson), Longview	8,961.80	8,772.75
Bond, J. B., and Republic Production Co., Longview	8,294.78	8,128.89
Bond & Gillespie, Longview	4,425.16	4,336.66
Bonner Co., The, Wichita Falls	13,315.87	12,678.96
Boonie Oil Co., Tyler	871.13	853.70
Boone Refining Co., Inc., Arp	9,492.33	9,302.46
Boreaths Oil Co., Oklahoma City, Okla.	2,424.55	2,329.56
Bostex Oil Corp., Johnstown, Pa.	8,682.20	8,508.55
Bourbon Royalty Co., Dallas	1,998.92	1,621.94
Bowser & Beckett, Dallas	9,159.00	7,686.22
Bowers Oil Co., Vernon	924.28	874.21
Bowman Oil Co., Rockdale	231.34	155.73
Robert Bowles Oil Co., Longview	9,033.05	8,852.39
Bowles Oil Co., Corsicana	22,349.65	21,902.65
Brockman, S., Weatherford	4,596.65	4,504.70
Bradley, J. V. and A. B. Foshee et al, Gladewater	2,424.00	1,212.00
Brady Brothers, Minerva	486.22	329.68
Braim, Lee, Glendale, Calif.	161.97	154.22
Brandenberg, C. H., Holliday	799.97	790.14
Brannon & Murray, Abilene	4,633.73	4,620.24
Brazelton Brothers, Graham	1,750.88	1,545.74
Brazos River Gas Co., Mineral Wells	16,102.02	15,834.45
Breck Oil Co., receiver, T. C. McMurray (or Brown & Eckholm), Fort Worth	14,975.08	14,969.06
Brewer, S. C., Breckenridge	428.00	391.92
Bridges, Milton, Kilgore	4,334.00	4,247.40
Bridwell Oil Co., Wichita Falls	121,607.57	110,917.57
Bridwell & Heydrick, trustee, Wichita Falls	958.06	831.31
Bridwell & Mayfield, Wichita Falls	4,948.02	4,945.34
British-American Oil Producing Co., Tulsa, Okla.	149,400.79	144,044.63
Britton & Gordon, Strawn	439.34	426.16
Brogan Oil & Gas Co., Tyler	5,090.34	4,988.52
Brown, Mrs. Carrie L., et al, Orange	6,905.09	5,524.07
Brown, Dr. E. W., estate, Orange	2,356.67	1,885.34
Brown, H. L., Fort Worth	4,900.51	3,675.40
Brown, R. J., et al, Henrietta	9,609.35	8,205.17
Brown Eagle Oil Co., Gladewater	7,126.60	6,983.08
Brown Farm Oil Co., Fort Worth	780.15	780.15
Brown & Lickey, Wichita Falls	412.76	393.88
Brownwood Producing & Refining Co., Brownwood	973.75	942.89
Bryant, R. B. (Daisy Bradford No. 1), Dallas	4,372.12	4,284.77
Bryson Oil & Gas Co., San Angelo	7,495.09	7,482.37
Buchanan, A. A., San Antonio	31,505.30	27,254.18
Buck Oil Corp., San Antonio	95.00	47.50
Buck & Sandwich, Jr., Mirando City	1,316.46	1,053.14
Burk Royalty Co., Burkburnett	13,676.46	13,038.23
Burns, Elizabeth L., Wichita Falls	1,534.39	1,496.62
Burns, L. T., Wichita Falls	77,341.57	75,820.02
Burkburnett Production Oil Trust, Baltimore, Md.	745.00	700.26
Burnett & Foshee, Gladewater	4,456.27	4,055.99
Burnett & Lee, Gladewater	4,142.12	4,062.56
Burton Drilling Co., Dallas	30,217.51	29,652.36
Butler-Calhoun & Boynton, Overton	13,824.62	13,548.13
Buttram, Frank, Oklahoma City, Okla.	68.12	65.14
Buttram Petroleum Corp., Oklahoma City, Okla.	22,323.06	22,323.06
Bynum, W. W., estate, Rockdale	499.24	339.49
Bynum & Palmer, Rockdale	81.86	55.66
Byrd-Frost, Inc., Dallas	84,088.58	82,406.81
C		
Cable Oil Co., Wichita Falls	7,770.30	6,557.48
Cabot Carbon Co., Boston, Mass.	674.62	593.67
Cady, C. C., Moran	252.33	206.89
California Co., The, Dallas	1,096,923.00	727,741.36
California Consolidated Oil Co., San Antonio	7,325.35	7,178.84
California Petroleum Corp. of Venesuela, Shreveport, La.	166,808.02	163,471.84
Callihan, George, Albany	2,583.60	2,396.63
Cal-Tex Corp., Kilgore	11,662.00	11,171.91
Caltex Oil Co., W. J. Mayers, manager, Somerset	169.78	118.79
Cambrian Oil Co., formerly Graham, Creek Hoover, Amarillo	9,540.15	8,395.31
Camp Oil & Gas Co., Dallas	315.75	300.74
Campbell, Alma, Fort Worth	959.34	912.44
Campbell & Tong, San Antonio	3,459.00	3,682.52
Capps, L. W., Houston	51,305.14	41,092.11
Cardinal Oil Co., San Angelo	47,371.04	26,276.13
Carlin, W. W., Ranger	408.06	385.55
Carey, C. W., Wichita Falls	3,904.70	3,475.18
Carr, A. P., trustee, Hollywood, Calif.	3,188.03	3,124.26
Carter, Roy I., Wichita Falls	12,638.96	9,686.00
Caruthers Co., San Antonio	1,026.60	719.62
Castlebury, S. A., Vernon	269.38	242.44
Centennial Oil & Gas Co., Dallas	30,471.00	24,104.64
Central Commercial Oil Co., Tulsa, Okla.	12,758.10	12,502.94
Central Oil Corp., Fort Worth	4,442.52	4,354.65
Central Producers, Inc., Mirando City	14,517.59	11,614.07
Ceseaux, P. C., Humble	5,462.00	4,370.74
Chalk, Otis, Big Spring	4,615.11	2,945.30
Champlin & Bass, Inc., Dallas	69,191.88	67,808.04
Champlin Refining Co., Enid, Okla.	88,353.79	76,432.50
Chapin, Ethel G., trustee, Mineral Wells	8,662.00	6,496.50
Charlesworth-Messinger Oil Co., McCamey	1,187.10	623.33
Charter Oil Co., Brownwood	6,614.11	6,386.72
Chatham Oil Co., Tulsa, Okla.	9,707.44	9,513.29
Cherokee Chief Oil Co., Gladewater	25,694.47	25,180.59
Chiquita Oil Co., San Antonio	14,681.25	8,716.30
Choctaw Oil Co., Longview	8,656.64	8,483.53
Christian & Edwards, Longview	5,493.78	5,235.51
Christie Bros., Wichita Falls	22,409.04	22,128.29
City National Bank, Wichita Falls	728.84	727.78
Claggett & Evans, Mirando City	652.14	521.72
Clark Buffalo Oil Corp., Buffalo, N. Y.	146.35	125.87
Clark, C. W., Wichita Falls	6,139.12	5,811.83
Clark, Robert L., receiver, Dallas	33,644.41	28,194.45
Clark, R. R., et al, Wichita Falls	24,719.69	24,719.69
Clark, R. R., Wichita Falls	6,844.84	6,798.54
Clarkson, H. W., Tyler	11,513.96	11,283.79
Clarkson, William, Jr., Houston	3,522.07	3,379.00
Claude Drilling Co., Pampa	3,078.43	2,503.57
Clay, J. D., Houston	4,091.45	3,273.00
Clay Dome Oil Co., Albany	854.93	778.73
Clayton-Key Oil & Gas Co., Amarillo	4,567.16	3,792.87
Clear Lake Oil Co., Rockdale	462.93	314.79
Clem Oil Co., Houston	221.46	179.33
Clint Wood Drilling Co., Breckenridge	27,214.30	24,992.68
Coastal Drilling Co. of Louisiana, Tyler	16,328.68	16,002.13
Cockburn & Bosse, Frederick, Okla.	13,971.86	13,692.42
Cockerham, Clyde, et al, Shreveport, La.	8,993.56	8,813.69
Coffield & Hale Oil Co., Rockdale	955.25	646.40
Coffield & Lanning, Rockdale	16,377.36	13,004.36
Coffman, David E., Dallas	6,698.35	6,564.35
Cohen, Aaron, Baltimore, Md.	8,434.76	7,851.42

Name and address—	Barrels	Value
Cole Petroleum Co., Laredo	11,177.31	8,941.86
Cole, W. C., Wichita Falls	1,085.82	1,015.96
Collie, B. F., Breckenridge	1,355.45	1,279.35
Collins, J. L., & Co., Corsicana	15,956.66	15,627.53
Collins, W. J., Luling	7,090.80	6,948.98
Collins-Lanier Syndicate, Shreveport, La.	8,434.69	8,266.00
Columbia Oil & Gas Co., Dallas	9,614.02	8,134.46
Comac Drilling Co., Wichita Falls	2,510.32	2,508.18
Combs, Mrs. L. A., Fort Worth	323.47	291.13
Comet Petroleum Co., Fort Worth	1,740.07	1,131.04
Concord Oil Co., Dallas	3,611.55	3,540.01
Condor Petroleum Co., Abilene	3,801.64	3,084.60
Connell, Wixson & Frazier, Eldorado, Kans.	767.60	524.81
Conner Oil Co., Wichita Falls	10,848.05	10,412.25
Consolidated Oil Co. of Texas, Wichita Falls	55,262.19	45,416.41
Continental Oil Co., Ponca City, Okla.	942,765.36	745,570.09
Conway Brothers, Ranger	2,965.40	2,889.22
Conyers, C. R., Electra	300.96	300.96
Coogan, Fred L., Sayre, Okla.	4,386.60	4,298.88
Cook Drilling Co., Fort Worth (12-31-31)	4,798.62	3,982.86
Cooper, W. R., and George B. Hamilton, Olney	4,334.40	4,018.94
Coppock & Coleman, Iowa Park	9,437.30	8,106.03
Corbin, W. D., and H. C. Culp, Henderson	4,200.00	4,116.00
Cordova-Union Oil Corp., Fort Worth	31,102.20	30,480.17
Cornhusker Oil Co., Lincoln, Neb.	575.92	460.74
Corzelius, C. F., trustee, Fort Worth	14,070.76	13,789.34
Cosden Oil Co. (George N. Moore and Hy. Zweifel, receivers), Fort Worth	100,745.57	75,697.79
Cottom, J. R., Wichita Falls	102.30	100.25
Cox, Edwin B., Ardmore, Okla.	912.68	795.21
Cox, Edwin B., and Jake L. Hamon, Ardmore, Okla.	98,908.76	96,930.57
Crabb & McNeel, Cross Plains	1,621.56	1,272.84
Craig & Lowrie, Pittsburgh, Pa.	945.50	652.30
Cranfill-Reynolds Co., Houston	339,987.01	284,196.83
Swearingen, W. B., receiver, Cranfill-Reynolds-Lowe Oil Co., Luling	3,074.62	2,305.95
Crenshaw Oil Corp., Wichita Falls	8,237.73	8,072.97
Crisp, G. O., Kaufman (amount not stated)	.....	10,874.33
Crisp, G. O. (formerly D. J. Simmons), Kaufman	4,420.49	4,332.08
C. R. & M. Drilling Co., San Antonio	7,268.13	7,268.13
Croft & Connor, Inc., Fort Worth	5,512.00	4,409.60
Cron & Gracey, Tyler	17,129.55	16,786.95
Crosbie, J. E., Inc., Tulsa, Okla.	5,537.12	3,679.88
Crown Central Petroleum Corp., Houston	40,281.28	33,351.63
Crown Central Petroleum Corp., Houston	33,113.57	26,490.34
Culbertson Co., Wichita Falls	4,972.73	4,349.49
Cullen Oil Co., Henderson (Sept. 30, 1931) (a.32)	27,480.45	6,422.78
Cullen Oil Co., Henderson	17,257.30	13,571.96
Cullen & West, Houston	751.71	601.36
Cullum, F. P., Wichita Falls	16,104.90	15,603.14
Cunningham & Lynch, Graham	4,715.36	4,622.74
Cunningham & McDonald, Loving	893.82	705.59
Cuno, Mrs. Bertha, Moran	997.06	917.26
D		
Dale & Crawford, Electra	640.58	629.93
Dale-Knotts Oil Co., Wichita Falls	238.19	238.19
Dalton, Jack, Oil Co., Mineral Wells	405.85	279.71
Danciger Oil & Refining Co. of Texas	435,219.68	371,825.15
Daniel Drilling Co., Wichita Falls	2,880.52	2,880.52
Darby Petroleum Corp., Tulsa, Okla.	62,978.14	61,752.83
Davis Oil Corp., Vernon	26,876.42	24,542.10
Davis-Henderson, Longview	3,889.12	3,811.34
Davis-Henderson-Hamilton, Longview	4,326.96	4,240.40
Dawson, C. K., Ponca City, Okla.	4,306.35	4,220.23
Day & Armstrong, Gladewater	4,312.95	4,233.70
Day & Co., Gladewater	4,332.90	4,246.25
Deal, T. M., Oil & Gas Co., Wichita, Kans.	4,648.85	3,242.32
Dean Oil Co., Burkburnett	119.77	110.19
Dean & Adkisson et al, Fort Worth	16,102.48	15,251.57
Dearing, R. H., & Sons, Dallas	6,231.00	6,106.92
Dearing, R. H., & Sons, Dallas	6,562.00	6,431.63
DeArman Producing Co., Tyler	27,519.00	26,968.62
Deep Oil Development Co., Wichita Falls	24,488.86	23,741.44
Deep Rock Oil Corp., Tulsa, Okla.	79,856.43	78,259.29
Deep Rock Oil Corp., Tulsa, Okla.	12,848.68	12,582.44
Deepsand Oil Co., Tyler	4,267.59	4,183.25
Degener & Co., Inc., Tyler	3,786.69	3,710.97
Delta Drilling Co., Longview	1,340.00	1,313.20
DeMayo, Bessie, Kansas City, Mo.	13,498.84	13,228.86
DeMontrond Oil Corp., Tyler	10,769.81	10,554.41
Denny & Andrews (By Graham Stewart, trustee, Graham), Breckenridge	444.00	426.23
Den-Tex Oil Co., Denison	4,432.92	4,344.25
Derby Oil Co., Wichita, Kans.	4,034.41	3,364.64
Derosa Oil & Gas Co., Amarillo	4,457.98	3,917.81
Despot, George, trustee, Shreveport, La.	4,574.06	4,482.58
Detroit Texas Development Co., Luling	2,939.75	2,204.81
Devonian Oil Co., Tulsa, Okla.	145,172.27	142,182.78
Diamond Oil & Refining Co., Overton	8,846.00	4,009.22
Dickey Brothers, Albany	1,320.00	991.60
Dillard Oil Co., Wichita Falls	24,942.86	24,542.00
Dimham Oil Co., Shreveport, La.	7,614.09	7,461.80
Dink Oil Co., Atmore, Okla.	3,964.98	3,885.68
Dixon Creek Oil & Refining Co., Amarillo	97,501.94	77,819.25
D. & L. Production Co., Houston	51,891.35	47,788.01
Dolores Oil Corp., Tyler	7,982.30	7,822.65
Donley & Chastain, Tyler	3,430.81	3,362.17
Dorfman & Reynolds, Longview	5,104.00	5,001.92
Dorfman, Sam, Longview	4,578.00	4,486.44
Dorian, R. P., Wichita Falls	4,567.94	4,567.94
Dorough-Smith Oil Co., Marshall	12,678.81	12,425.23
Douglas, Jesse L., Moran	459.90	432.30
Douglas, Jesse L., trustee, Moran	950.43	779.34
Douglas Brothers Oil Co., Electra	1,121.67	1,121.67
Douglas Brothers & Johns, Electra	630.32	613.87
Douglas Production Co., Electra	3,061.03	2,914.94
Dowell, B. G., Batson	5,498.84	4,399.07
D. P. M. Corp., successor to Alamo Drilling & Leasing Co., Galveston	6,087.49	4,869.98
Driscoll, R., estate of, Corpus Christi	14,864.13	11,891.30
Duluth Arrowhead Oil Co., Duluth, Minn.	4,020.83	3,940.42
Duluth-East Texas Oil Co., Duluth, Minn.	5,159.37	5,056.17
Duffield & Howard Oil Co., Tulsa, Okla.	573.46	422.23
Duke, J. A., Burkburnett	370.91	291.46
Duke, W. R., Wichita Falls	8,056.59	7,905.27
Dunaway Brothers, Pampa	1,647.39	1,185.53
Dunaway, J. E., et al, Wichita Falls	874.68	760.22
Duncan & Holt, Dallas	18,136.01	16,807.90
Dunigan Brothers, Breckenridge	4,475.95	3,589.84
Dunlop, Robert, Ponca City, Okla.	851.92	758.48
Dunlop, Robert, Ponca City, Okla.	912.85	863.30
Dunn, G. C., receiver, T. H. P. Duncan lease, Dallas (April 1 to September 30)	10,934.04	10,715.34
Dunning, William H., Jr., Fort Worth	4,302.24	4,216.19
Duquesne Oil Corp., Eastland	323.58	294.36
Duval Oil Corp., San Antonio	116,721.34	93,377.07
Dyck Oil Co., Tulsa, Okla.	29,720.54	29,126.63
Dyer, W. H., Graham	1,650.33	1,396.62
Dye & Gillette, Tulsa, Okla.	7,643.47	6,630.10
E		
Earle, E. S., et al, Fort Worth	3,890.45	3,812.64
East Batson Oil Co., Batson	5,528.36	5,832.69
Easter, Dan, et al (E. J. McCurdy, Jr.), Fort Worth	5,886.96	5,776.51
Eastland Oil Co., Fort Worth	52,561.76	27,660.31
East Texas Oil Refining Co., Dallas	389,847.61	377,461.09
Easton, E. S., Wichita Falls	691.06	691.06

Name and address—	Barrels	Value
East Shore Oil Co., Henderson	16,069.02	15,747.64
Eberhart, L. A., trustee, Brownwood	347.00	303.65
Ebony Oil Co., Henderson (September 30, 1931)	19,008.78	6,736.02
Ebony Oil Co., Henderson	8,654.82	3,481.72
Eckert & Son, San Antonio	7,842.79	6,260.30
Eckert, F. H. San Antonio	473.48	345.73
E. & D. Oil Co., Shreveport, La.	22,147.28	21,088.34
Eddingston, Mrs. Eurina, and associates, Port Arthur (none)	.....	.....
Eddleman & Payne, Inc., Fort Worth	2,906.11	2,869.79
Edgar, Joe, Georgetown	4,442.77	4,353.90
Edmondson, J. M., San Antonio	1,001.54	742.30
Edson Petroleum Co., San Angelo	4,196.52	4,112.58
Edwards, B. J., Oklahoma City, Okla.	220.65	210.31
Edwards Drilling Co., Houston	7,306.18	7,154.17
Reele, S., receiver for E. & H. Oil Co., Dallas	5,605.00	4,881.66
Electra Production Co., Inc., Electra	483.29	467.32
Elm Oil Co., Tulsa, Okla.	8,432.45	8,263.80
El Rio Oil Co., Amarillo	293.34	193.94
Emerald Oil Co. of Texas, Winfield, Kans.	1,999.09	1,299.41
Empire Gas & Fuel Co. (Maine), Bartlesville, Okla.	612,687.15	567,038.61
Engel, E. A., Albany	3,846.63	3,700.49
Enterprise Oil Corp., Seminole, Okla.	5,328.84	5,222.26
Eppenauer, A. R., San Angelo	35,301.84	22,946.19
Equity Oil Co., Fort Worth	2,732.41	2,677.76
Estelle Oil Co., Beaumont	469.30	375.45
Erie Investments, Ltd. of Texas, Ontario, Canada	288.14	190.17
Ernest Oil Co., Rockdale	96.75	65.79
Estes, Joe B. (Ras Pool lease), Fort Worth	2,629.06	2,576.48
Etex Oil Co., Dallas	3,265.45	3,200.58
Entyre Petroleum Corp., Dallas	4,300.06	4,214.04
Eubank, R. O., and B. K., Coleman	1,025.79	823.70
Everts, C. A., Dallas	94,847.98	91,275.10
Everett, C. B., fee, Gladewater	3,773.26	3,702.72
Everitt Oil Co., Tulsa, Okla.	10,465.54	10,256.22
Everett & Phillips, Gladewater	2,415.12	2,366.82
Export Petroleum Corp., Fort Worth	4,246.67	4,161.74
F		
Fain-McGaha Oil Corp., Wichita Falls	230,151.03	217,255.49
Fair, R. W., Oil Co., Tyler	12,629.65	12,377.07
Fair & Thompson, Tyler	17,173.64	16,830.18
Fairway Production Co., Laredo	4,374.60	3,499.68
Falcon Co., Fort Worth	30,494.60	29,884.71
Falls Production Co., Wichita Falls	8,475.45	8,314.68
Falls Refining Co., Inc., Wichita Falls	2,731.55	2,344.91
Falvey, J. C., Longview	12,042.04	11,802.21
Farish & Ireland lease, Houston	6,341.98	5,075.59
Farley, George E., McCamey	14,902.00	9,686.52
Farlyn Oil Co., Houston	18,218.40	16,401.38
Farmers State Bank, Burkburnett	722.67	660.44
Farrell Oil Co., Amarillo	1,511.75	1,325.23
Faulkner, F. V., Dallas	719.33	719.33
Federated Oil Co., Wichita Falls	29,624.90	29,033.42
Feldman, D. D., Dallas	2,496.89	2,347.07
Ferguson, W. R., Wichita Falls	443.79	438.87
F. H. E. Oil Co., Fort Worth	96,155.02	92,433.53
Fifty-Five Oil Co., Gladewater	3,385.88	3,318.16
"56" Petroleum Corp. of Texas, Miles City, Mont.	524.04	482.12
Finston, Mark, Special Account, Tulsa, Okla.	9,055.94	8,218.66
First National Bank, trustee, Fort Worth	6,624.68	6,332.04
First National Bank of Wichita Falls, trustee, G. W. Mennis estate, Wichita Falls	3,333.63	3,020.92
Flanagan Production Co., Inc., Longview	15,105.42	14,243.60
Fleming-Kimbell Corp., Fort Worth	74,016.25	72,530.94
Fleming & Kimbell, Fort Worth	3,019.59	2,301.89
Florence Oil Co., Tyler	5,732.00	5,332.79
Flynn, W. B., Inc., Beaumont	8,120.37	6,704.47
Forbes, W. C., Electra	216.81	215.74
Swearingen, W. B., receiver for Forest Oil Corp., Luling	3,454.42	2,590.82
Forster Oil Co., Pampa	5,472.09	4,706.24
Foster, Don S., Mexia	2,670.35	2,448.98
Four Oil Co., Wichita Falls	588.74	532.89
Fox & Adams, Burkett	11,721.34	10,080.35
Fox & Butler, Dallas	11,287.71	11,071.76
Fox & Thorsen, Mertzon	360.00	305.48
Franklin, Wirt, Ardmore, Okla.	145.36	144.25
Franklin, B. J., and M. J. Sullivan, Kansas City, Mo.	403.00	370.73
Freels, Hugo, Chicago, Ill.	1,323.62	860.36
Freeman-Hampton Oil Corp., Wichita Falls	4,082.82	3,924.45
Fresno Oil Co., Burkburnett	23,879.51	21,246.43
Fullerton, W. R., Wichita Falls	1,105.95	1,002.94
Fullwood, Travis, Corsicana	6,358.22	6,231.05
Fultz, W. B., et al, J. J. Scott farm, Graham	2,695.26	2,579.92
G		
Gaither Production Co., Rockdale	387.43	263.45
Gallagher & Lawson, Cisco	254.12	224.45
Galvez Oil Corp., Tulsa, Okla.	68,363.10	66,832.47
Gandy, L. O., Tyler	4,292.31	4,206.47
Gant & Wegener, Ardmore, Okla.	3,775.90	3,700.39
Gardner Brothers, Wichita Falls	2,632.80	2,316.85
Gardner, Wilson & McCaldin, Wichita Falls	578.33	576.51
Gaskill, M. E., Tulsa, Okla.	13,083.77	12,822.10
Gaskill, S. A., Tulsa, Okla.	4,031.00	3,902.38
Gates-Bacon-Lea, Wichita Falls	2,845.08	2,677.93
Gates Oil Co., Ardmore, Okla.	1,825.83	1,744.23
Gatlin Oil Co., San Antonio	7,525.50	6,011.76
George & Allison, Overton	4,772.00	4,334.38
Geyer, Adolph A., and R. G. Storney, Dallas	4,951.21	4,888.15
Gholson, John M., Ranger	2,429.94	2,381.39
G.-I. Oil Co., Wichita Falls	5,702.21	5,092.18
Gibson & Johnson, Inc., Fort Worth	4,412.00	4,324.71
Gibson-Johnson & Merrick, Fort Worth	4,081.48	3,995.85
Gibson Oil Corp., Amarillo	28,615.12	23,738.73
Gilber Co., The, Beaumont	2,949.90	2,359.92
Gilcrease Oil Co., Tulsa, Okla.	34,248.80	33,573.67
Gilman, R. F., and J. L. McMurray, Cisco	7,638.50	7,245.19
Gillman Brothers, Amarillo	2,406.25	1,806.01
Gilman & Conway Brothers, Ranger	2,827.62	2,827.62
Ginter-Jones Oil Co., Nacogdoches	317.18	247.31
Ginter Lange Oil Co., Nacogdoches	344.27	671.07
Girard Corp., Dallas	83,296.56	78,205.90
Gist Way Oil Co., Colorado	2,416.90	2,208.55
Gladewater Refining Co., Gladewater	11,687.76	5,844.88
Gladewater Refining Co., Gladewater	17,000.00	16,660.00
Gladis Oil Co., Saratoga	2,301.71	1,534.46
Glass Brothers, Rosebud	459.94	311.30
C. G. Glasscock, Longview	17,756.89	17,411.76
C. G. Glasscock (Carlisle Rountree Oil Co.), Longview	4,654.70	4,561.60
Glasscock, Lonnie, Longview	17,584.72	17,237.15
Glasscock, Rosa V., Longview	4,397.22	4,309.29
Glenn, John, Pipe & Supply Co., Breckenridge	2,525.21	2,362.82
Glenridge Oil Corp., St. Louis, Mo.	2,201.82	2,126.34
Glover, S. D., et al, Vernon	152.17	131.23
Glover, S. D., Vernon	2,158.51	1,851.99
Godlin, Louis, Tyler	447.00	178.80
Gohman Oil Co., Rockdale (1-1 to 9-30-31)	135.00	92.13
Goldsmith, N. D., Olney	8,753.55	8,238.09
Gold Star Oil Co., Ardmore, Okla.	4,255.64	4,170.54
Golden West Oil Co., San Antonio	10,914.04	6,670.58
Golding & Cochran, Dallas	31,046.82	29,755.13
Goodnight-Donald Oil Corp., Dallas	11,784.64	10,548.95
Goodwin, P. B., trustee, Breckenridge	1,574.41	1,023.38
Gordon, Ann B., Oil Co., Inc., Dallas	1,857.65	1,857.65
Gorsuch Oil Co., Abilene	2,017.96	1,550.34
G. & R. Oil Co., San Antonio	4,189.71	4,105.92
Grady, Mary E., Electra	1,199.84	1,163.85
Graham, Charles, Myra	838.28	670.61

Name and address—	Barrels	Value
Granite Oil & Gas Co., Electra	347.96	347.96
Grassroots Oil Co., Fort Worth	873.20	873.20
Grayback Development Corp., Wichita Falls	3,661.02	3,295.12
Gray & Adams, Inc., Gainesville	1,320.00	1,052.17
Grayburg Oil Co., San Antonio	95,299.27	56,767.50
Great Eastern Oil Co., Dallas	16,747.94	16,413.98
Great Western Oil Corp., Tyler	4,184.00	4,100.32
Green & Owens, Brownwood	350.50	350.50
Gregg Holding Co., The, Longview	4,939.58	4,840.76
Gregg Oil Co., Gladewater	28,471.79	27,902.35
Gregg Oil Co., Gladewater (9-30-31)	5,137.74	3,493.66
Griffith, S. B., agent, First Natl. Bank & Trust Co., Tulsa, Okla.	9,726.94	9,684.71
Grisham-Hunter Corp., Abilene	26,329.88	25,739.06
Group No. 1 Oil Corp., Fort Worth	810,943.90	734,174.55
Guiberson, S. A., Jr., Dallas	9,306.00	9,119.88
Guiberson Oil Co., Dallas	22,517.00	22,066.66
Gulf Production Co., Houston	6,886,364.00	$5,590,346.02
Gulf Coast Drilling & Production Co., Houston	1,923.81	1,859.72
Gulf Coast Drilling & Production Co., Houston	48,273.06	46,684.40
Guthrie, W. S., Rockdale	861.42	568.07
Gwynn, P. F., Wichita Falls	6,261.87	6,167.46
Gwynn, P. F., indiv. and agt. for J. F. Boyd et al, Wichita Falls	784.37	656.91
H		
H. A. M. Oil Co., Chicago, Ill.	4,634.72	4,122.56
Haddaway, R., et al, Fort Worth	2,268.99	1,878.99
Haddaway, R., et al (formerly F. D. Spratt et al), Fort Worth	4,182.28	4,098.64
Hall, A. G., and V. P. Lary (Alexander No. 1), Longview	4,340.30	4,253.48
Hamill & Hamill, Bay City	45,531.13	37,722.79
Hamill-Smith Oil Corp., Houston	24,346.63	23,844.90
Hamilton, W. L., Bridgetown	3,336.41	3,336.40
Hamilton, Walter R., trustee, San Antonio	2,810.89	2,287.75
Hammon & Heyser, Wichita Falls	3,812.95	3,358.19
Hammon, W. R., Wichita Falls	18,137.04	18,044.99
Hammond Oil Co., Fort Worth	20,551.79	20,161.50
Hammond & Waggoner, Wichita Falls	663.85	662.40
Hammon Oil Co., Smithport, Pa.	790.00	722.70
Hamon, Jake L., Ardmore, Okla.	15,197.02	14,731.65
Hampton & Haslip, Tyler	4,429.06	4,340.48
Handrick, August, Moran	27.79	22.78
Hankamer, Earl C., & Co., Sour Lake	234.10	187.28
Hankamer & Lee, Sour Lake	4,176.80	4,093.26
Hanlon Gasoline Co., Tulsa, Okla.	3,703.78	3,256.41
Hanbury, Harry, Pasadena, Calif.	30,656.45	26,174.11
Hanbury, Harry, Pasadena, Calif.	27,803.16	27,247.08
Harcher Oil Co., Kilgore	8,073.19	7,637.53
Hardie, J. M., & Co., Sour Lake	132.40	105.92
Hardy Oil Co., Wichita Falls	1,196.88	964.25
Harper Petroleum Corp., Bryson	13,038.10	12,038.10
Harrell, J. T., Wichita Falls	327.31	326.93
Harris, J. T., Gladewater	4,604.92	4,612.83
Harris & Simons, Tulsa, Okla.	3,506.48	2,664.92
Harris, M., Dallas	4,159.41	4,076.32
Harrison Oil Co., Houston	19,052.23	17,309.78
Hart, W. S., Vivian, La.	928.79	928.79
Harwell, E. P., Tulsa, Okla.	766.67	668.62
Haskell, Frank, care V. W. Henry, Tulsa, Okla.	1,438.78	1,288.81
Hastings, Allen & Craft Co., Overton	4,409.95	4,321.75
Hawkins, J. C. (J. M. Faison, Tyler)	4,945.01	4,717.94
Hawkins, W. L., Wichita Falls	2,695.57	2,317.59
Hawkeye Petroleum Corp., Longview	28,629.23	28,056.66
Hawley, J. A., guardian estate Kevin Hawley, Ottawa, Ontario Canada	115.61	106.35
Reese L. Hayes, Olney	861.49	754.91
Hayner, J. M., trustee, Tyler	4,746.18	4,441.40
Haynes Drilling Co., Inc., Shreveport, La.	51,497.29	50,467.14
Hays, F. C., trustee, Tulsa, Okla.	1,056.32	1,014.08
H. B. J. Oil & Gas Trust, Baltimore, Md.	1,383.46	1,325.23
H. B. W. Oil Co., Tyler	14,255.02	13,969.93
Hedges, F. M., Wichita Falls (4-1 to 9-30)	377.02	355.18
Hedges, C. T., Megargel	643.35	623.88
Hedrick-Camp Drilling Co., Dallas	1,700.42	1,476.96
Heep Oil Corp., Houston	54,676.71	52,692.76
Hefley McIntosh & Thomas, Cameron	460.49	292.79
Heidrich, E. G., Jr., Amarillo	1,006.32	686.29
Helvetia Oil Co., San Antonio	8,292.92	6,236.58
Hemby, J. M., Electra	832.46	814.84
Henderson & Holden, Wichita, Kans.	4,566.66	4,475.32
Henke, D. W., Dallas	4,162.00	4,078.76
Henry Oil Corp., Luling	13,314.21	12,949.93
Henson, Odell, Okmulgee, Okla.	12,043.77	11,802.89
Herbert Oil Co. of Texas, Fort Worth	5,915.49	5,320.15
Herring, S. C., Brownwood	367.96	367.95
Herrogan Oil Corp., Pampa	9,386.05	8,127.86
Heydrick, L. C., Wichita Falls	7,046.67	6,682.65
Heyser & Heard, Dallas	27,250.55	26,705.34
H. & H. Drilling Co., Gladewater	129.56	119.14
H. & H. Drilling Co. and J. L. Douglas, Moran	356.00	327.52
Hickey, T. J., et al, Corsicana	59.88	56.28
Hickman, L., Dallas	4,398.16	4,310.20
Hickok Producing & Development Co., Toledo, Ohio	134.11	116.53
Hickory Oil & Gas Corp., Fort Worth	1,721.01	1,576.62
Hill & Head, Wichita Falls	4,772.88	3,941.42
Hinchliffe, W. W. and J. L., Mexia	8,003.17	7,843.10
G. W. Hindman, G. W., et al, San Antonio	4,005.37	3,925.27
Hines, Harry, Wichita Falls	1,966.27	1,944.42
Hinson, G. D., and R. V. Tidwell, Graham	3,199.74	3,031.08
Hinton, W. B., Lockhart	24,772.13	16,931.58
Hitchman & Howard, Inc., San Antonio	1,461.66	1,123.19
H. & L. Well Co., Inc., Goose Creek	454.84	362.97
Hobbs, Henry, Wichita Falls (3-1 to 9-30)	570.62	570.62
Hobbs, M. X., Gladewater	4,444.33	4,355.44
Hobbs, M. X., Wichita Falls (3-1 to 9-30)	472.86	472.86
Hobbs, Ferguson & Neely, Gibson & Adams, Tulsa, Okla.	679.07	612.45
Hobbs Oil Co., Tulsa, Okla.	1,313.78	1,262.83
Hoben & Salmon, Nocona	863.04	655.51
Hobson & Voorhees, Frost Woodhull, receiver, San Antonio	399.35	307.43
Hoffman, P. L., Cisco	41,532.92	32,915.50
Hoffman & Page Co., The, Eastland	15,549.86	14,795.14
Holbrook & Woods, Wichita Falls	3,414.19	3,151.31
Holcombe, Thomas, Wichita Falls	850.62	715.33
Holmes Brothers, Moore Lease, Amarillo	2,593.07	2,281.90
Holmes Brothers, Quinn, Amarillo	13,406.92	11,798.00
Holmes, Hill, Seibold & Holmes, Moore Lease, Amarillo	13,539.44	11,078.70
Holmes-Newblock, Moore lease, Amarillo	1,950.91	1,716.80
Home Gas Co. of Cushing, Cushing, Okla.	1,341.76	1,285.49
Home Oil & Gas Co., Albany	547.98	495.95
Hooks, Ridgeway & Weaver, Donna	5,223.00	2,611.50
Whisenant, Herbert W., receiver for John Hoover, Dallas	41,422.66	40,594.20
Hope Oil & Gas Co., Fort Worth	10,370.12	9,784.35
Hoppes, W. T., Burkburnett	596.45	566.01
Horn, T. W., Houston	556.10	444.88
Horseshoe Lease Syndicate, Dallas	5,276.75	5,269.22
Houston Gulf Gas Co., Houston	3,718.61	2,974.88
Houston Oil Co. of Texas et al, Houston	574,792.66	532,389.13
Houston Production Co., Houston	53,366.40	47,554.37
Howard County Oil Corp., Longview	3,366.00	2,577.90
Howard, Duffield & Berlin, Tulsa, Okla.	801.51	592.27
Howard Petroleum Corp., Tulsa, Okla.	34,755.47	33,367.46
Howell, Roy B., Overton (May 1 to September 30)	7,155.19	7,012.09
Huber, J. M., Petroleum Co., Borger	23,355.92	21,281.28
Huey, Ora, Borger	3,512.63	2,529.09
Huffman Oil Corp., Amarillo	2,768.11	1,904.33
Hughes, James B., Bloomington, Ill.	9,930.13	8,751.58
Hughes, J. K., Oil Co., Mexia	11,460.00	10,436.37
Hull, L. V., Wichita Falls	3,367.15	3,367.15
Humble Oil & Refining Co., Houston	8,177,497.51	7,140,704.23
Humphreys, A. J., Caddo	386.14	582.21
Humphreys, W. G., Dallas	873.00	855.54
Hunt, Sherman, et al, Tyler	3,448.72	3,379.74
Hunt Production Co., Tyler	499,233.15	489,247.53
Hunt, Sherman, Tyler	4,325.80	4,239.29
Hunter Oil Corp., Chicago, Ill.	14,530.39	14,528.07
Hunter, T. F., Wichita Falls	12,725.17	12,367.50
Hutchinson Drilling Co., Borger	477.43	357.48
H.-Y. Oil Co., Inc., Fort Worth	17,702.27	16,964.12
Hyde, J. O., and Tom James estate, Albany	754.74	696.01
Hyer, Fred, Fort Worth	11,240.00	7,305.99
Hynes, F. P., et al San Antonio	11,011.90	10,791.66
I		
Castle, W. R., receiver for Idaho Oil Co., Tyler	6,607.09	6,474.95
Idaho Oil Co., San Antonio	1,975.32	1,436.08
Ilfeld, Arthur C., Las Vegas, N. Mex.	5,332.81	5,226.16
Imperator Oil Corp., Dallas	20,162.36	19,759.11
Imperator Oil Corp. and R. B. Bryant, Dallas	8,561.01	8,389.79
Imperial Petroleum Co., Dallas	20,625.85	17,718.77
Tennant, Roger L., receiver, Indian State Oil Co., Dallas	9,533.08	9,342.41
Indian Territory Illuminating Oil Co., Bartlesville, Okla.	34,136.31	25,736.17
Lewis, Thomas T., receiver, Inland Oil Co., Dallas	1,932.13	1,893.54
Inland Oil Co., Dallas	13,386.03	7,939.05
Investors Oil & Gas Co., Sioux Falls, S. Dak.	688.11	688.11
Intercoastal Oil Co., Houston	8,294.54	6,956.75
Iotex Oil Corp., Winterset, Iowa	12,478.84	12,229.26
Iowa-Payne Oil Co., Tyler	45,038.55	43,549.79
Irick Oil Co., Waskom	217.60	204.53
Irish Oil Co., Tyler (at .25)	1,716.00	429.00
Iron Mountain Oil Co. of Texas, Fort Worth	8,557.60	7,345.56
Island Oil Co., Longview	30,998.75	30,378.74
J		
Jackson, Wise & Markham, Sapulpa, Okla.	12,664.63	12,411.32
Jackson, Wise & Snedden, Inc., Sapulpa, Okla.	42,500.43	41,650.44
Jackson, T. H., Jr., Sipe Springs	35.16	34.46
Jackson, J. S., trustee, Sour Lake	2,373.23	1,898.58
Jacob Oil & Gas Co., Graham	2,198.32	2,057.25
Jacob, Bussini & Pickett, Inc., San Antonio	11,324.35	7,281.06
James, Tom, estate, by Ed James, administrator, Albany	2,888.47	2,782.70
Jamison, Pollard & Forster, Coleman	9,193.25	7,663.67
Janellen Oil Co., Tulsa, Okla.	167.17	142.93
Jarrett, W. R., Oklahoma City, Okla.	4,382.73	4,295.07
Jay Kay Oil Co., Little Rock, Ark.	8,175.65	8,012.15
Jeffries, M. G., San Antonio	8,029.04	7,868.47
Jeffries, M. G., San Antonio	3,524.27	3,453.78
J. O. Oil Co., Tyler	4,221.33	4,136.90
Johnson, F. T., Gainesville	309.68	274.58
Johnson, T. A., trustee, Tyler	4,100.09	4,018.10
Johnson, T. A., trustee, Tyler	3,285.43	3,219.72
Johnson, J. E., and W. B. Pearce, Shreveport, La.	4,713.87	4,619.60
Johnston & Rogers, Tyler	15,241.32	14,936.49
Johnston, Wyche & Yarbrough Oil Co., Longview	4,450.62	4,361.61
Jones, Edwin M., San Antonio	80,906.21	78,796.10
Jones, F. C., Dallas	2,299.00	2,253.02
Jones, Hugh, Burkburnett	2,573.00	2,332.22
Jones, J. A., Moran	95.80	93.77
Jones, J. E., Wichita Falls	1,349.92	1,136.73
Jones, E. W. and F. D., Drilling Co., Dallas	12,806.14	12,550.08
Jones, O. P., and C. J. Oates, Amarillo	2,009.00	502.25
Jones, W. C., Pampa	2,959.06	2,603.97
Jones, W. R., et al, Wichita, Kans.	17,431.22	17,082.59
Jones-Doss Oil Co., Oklahoma City, Okla.	42,146.91	41,303.97
Jones-O'Brien, Inc., Shreveport, La.	70,472.98	68,677.16
Judson Oil Co., Tulsa, Okla.	4,677.35	4,460.53
Julia Oil Co., Sour Lake	2,362.39	1,889.91
Julian, C. C., Oil and Royalties Co. (J. Kingsbery, Jr., co-anc. receiver), Fort Worth	12,487.99	11,540.58
Julian, C. C., Oil and Royalties Co. (John W. Harreld and J. F. Lucey, co-anc. receivers), Dallas	12,974.00	12,714.20
Justin Oil Corp., Dallas	4,610.81	4,561.15
K		
Kahle, Gracey & Diver, Dallas	1,719.20	1,306.59
Karona Oil Co., Corpus Christi	12,129.62	10,462.61
Kathleen Oil Co., McAlester, Okla.	13,140.38	12,877.57
Katter & Manziel, Gladewater	4,463.68	4,374.41
Kaufman, L., San Antonio	52.14	35.46
Kavanaugh Petroleum Co., Houston	3,349.48	3,046.47
Kay, A. W., and W. B. Fultz, Graham	3,014.74	2,964.45
Keener Oil & Gas Co. of Texas, Tulsa, Okla.	2,097.28	1,949.34
Keller, J. E., Iowa Park	78.00	66.69
Kemrow Co. and Bailey, Wooster, Ohio	8,576.09	8,239.07
Kendrick, P. S., Albany	1,070.26	1,006.04
Kent, G. C., Corsicana	15,522.22	12,914.22
Kent Refining Co., Corsicana	6,428.56	4,352.09
Kenwood Oil Co., McAlester, Okla.	12,682.33	12,428.68
Kerr, E. E., Houston	4,182.90	4,099.22
Kerr, T. P., Corsicana	612.47	569.10
Kewanee Oil & Gas Co., The, Titusville, Pa.	222,813.87	208,314.78
Key., H. P., et al, well No. 1, Kilgore	4,436.64	4,347.90
Key, Dalby Bell, Marshall	3,814.21	3,737.93
Key, H. P., et al, well No. 2, Kilgore	4,408.68	4,320.50
Keystone Production Co. of Texas, Fort Worth	1,782.98	1,738.85
Kidney & Lester, Fort Worth	4,603.00	4,510.94
Kilgore Refining Co., Inc., Overton	62,108.26	60,866.11
Kimball, G. T., and John L. Bostic, Burkburnett	8,481.37	8,142.12
Kimble, H. B., trustee, Stamford, Conn.	4,298.52	4,207.94
Kimmell, W. O., Wichita Falls	2,854.32	2,780.24
Kimmell & Woofter, Wichita Falls	3,075.19	2,474.62
King, A. D., trustee, Shreveport, La.	11,188.50	10,866.73
King, Frank W., Kilgore	6,719.63	6,585.24
King, R. A., trustee, Wichita Falls	784.77	627.81
King & Daniel, Wichita Falls	3,451.57	3,438.79
King & Massengill, Longview	22,489.00	22,040.47
King, T. A., and E. Williams, Brownwood	231.86	203.00
King Royalty Co., Wichita Falls	182,514.56	178,914.54
Kingwood Oil Co., Okmulgee, Okla.	23,810.35	23,334.14
Kinnebrew & Simpson, Shreveport, La.	4,128.52	4,045.96
Kirby Petroleum Co., Houston	111,289.38	87,923.23
Kiser & Fleming, Albany	2,063.50	1,939.69
Kisk Oil Co., Wichita Falls	768.71	651.09
Kittery Oil Co., secur. J. R. Healy, Casper, Wyo.	6,866.83	6,141.36
Kleiner, Charles J., Cisco	56,051.15	53,918.80
Kleiner, John H., Cisco	419.05	415.92
Kleinfelder, B. F., Breckenridge	189.28	177.91
Klemcke, George W., trustee, Von Ormy	980.44	686.31
Knotts, Nona A., Wichita Falls	549.55	546.59
Knox, D. M., Graham	17,888.57	17,817.15
Koberg Oil Co., Oklahoma City, Okla.	12,900.22	12,642.22
Koenig, Max W., Oakland, Calif.	10,740.63	6,874.00
Kolp, C. F., Electra	12,348.05	11,870.10
Kolp, C. F., et al, Tyler	16,848.33	12,011.68
K. O. T. Oil Co., Arp	24,209.47	23,574.94
K. & P. Oil Co., Tyler	21,408.28	20,980.11
Kuhlemeier-Kleiner Oil Co., Cisco	853.76	850.07
Kunz, A. A., Somerset	144.52	106.94
Kunz Oil Co., Somerset	380.01	266.00
L		
Lacy Petroleum Co., Inc., Longview	8,542.00	8,378.02
Lackey, W. G., Co. (Bourbon Royalty Co. of Dallas, Tex., operator and joint owner), Tulsa, Okla.	1,530.50	1,414.29
Laird, S. S., Kilgore	17,194.14	16,850.12
La Jita Corp., San Antonio	97,153.62	72,865.26
Lake, W. S., successor to Texas Petroleum Development Co., Cameron	2,745.57	1,865.44
Lake Graham Oil Co., Houston	773.97	619.17
Lake View Oil Co., Sour Lake	8,618.96	6,895.12

Name and address—	Barrels	Value
Lampton, H. W., Winona	3,306.40	3,120.25
Landes, A. N., Tyler	4,802.50	4,706.45
Landreth Production Corp., Fort Worth	75,851.37	49,303.21
Laughman, L. W., Beaumont	416.32	333.06
Lawson, Eugene B., estate of, Tulsa, Okla.	25,477.76	23,824.75
Lebow, C. H., Tulsa, Okla.	998.50	998.50
Lechner & Hubbard, Dallas	21,340.59	20,913.77
Leck Royalty & Oil Co., Fort Worth	53.47	38.50
Ledger Oil & Gas Co., Brownwood	1,590.04	1,492.41
Lee, Homer, Wichita Falls	9,336.23	8,986.52
Lee, T. W., Gladewater	4,597.32	4,505.39
Lee & Phillips, Gladewater	12,547.45	12,296.51
Lee & Scott, Inc., Houston	1,734.66	1,387.73
Lee, T. P., and E. M. Wilson, Houston	2,279.15	1,838.78
Lefors Petroleum Co., Lefors	15,176.05	12,070.04
Leidecker & Cayton, Dallas	9,123.89	5,930.53
Leiser-Rochmill Production Co., Fort Worth	1,033.04	1,024.60
Lencook Oil Co., Electra	222.12	213.23
Leonard, George, Somerset	838.98	624.65
Leonard Petroleum Co., et al, Washington, Pa.	25,298.41	24,739.51
Lesh, John L. & Co., Nocona	4,472.42	3,399.05
Lesh & McCall, Nocona	33,398.66	29,800.21
Lesh, Kilcrease & Co., Nocona	1,525.80	1,159.60
Lester & Duffield, Fort Worth	21,364.00	20,936.72
Letwin & Lippitt, Fort Worth	28,358.00	27,300.60
Lewis, J. E., Eastland	655.80	535.99
Lewis, J. E., et al, Eastland	220.06	205.30
Lewis Production Co., Pittsburgh, Pa.	53,167.06	51,493.65
Ratliff, R. H., receiver for Lewis & Slagel, Colorado	1,982.52	1,298.63
Lewis, Stanley, Oklahoma City, Okla.	7,901.35	7,743.24
Lide-Rowe Oil Co., Inc., Shreveport, La.	12,824.82	12,568.33
Lide-Taylor Oil Co., Shreveport, La.	17,088.65	16,746.87
Lido Oil Co., Vernon	37,701.58	34,920.25
Linedo Oil Co., Lincoln, Neb.	254.61	203.68
Liner, Inc., Longview	11,488.80	7,286.62
Lion Oil Refining Co., El Dorado, Ark.	390,183.77	293,276.94
Lipscomb, R. C., Tyler	5,903.40	4,749.61
Little, William, Pecos	6,994.41	4,546.36
Little, William, Breckenridge	117.14	103.07
Little Caesar Oil Co., Longview	4,520.76	4,430.34
Little Flower Oil Co., St. Louis, Mo.	312.29	282.19
Hamill, J. G., receiver for Lively & Bryant et al, Fort Worth.	3,369.37	3,301.99
Hamill, J. G., receiver for Lively & Bryant et al, Fort Worth.	4,614.25	4,521.95
Livingston & Wellman, Eastland	286.00	234.00
Lloyd, H. D. and Carl Olsen, receivers for Doty, McGee & Brown, Longview	3,508.36	3,438.20
Lockhart & Co., Los Angeles, Calif.	54,707.69	35,559.99
Lockhart, H. L., Gladewater	4,217.15	4,132.81
Loggie & Arendt Oil Co., Inc., Albany	1,200.85	1,051.16
Lone Pine Oil Co., Tyler	11,369.03	11,141.64
Lone Pine Oil Co., Tyler	9,194.79	9,010.99
Lone Star Gas Co., Dallas	20,715.67	20,418.97
Lone Star Gasoline Co., Dallas	4,840.81	4,535.48
Lone Star Oil Co., Ardmore, Okla.	4,488.86	4,399.06
Long Oil Co., Henderson	8,476.00	8,306.48
Long, C. B., Wichita Falls	219.64	208.42
Long, L. A., et al, Graham	28,379.18	28,240.72
Long, Roy, Oil Co., Navasota	1,111.48	755.78
Los Olmos Oil & Gas Co., Harlingen	11,623.19	5,814.63
Louisiana Oil Refining Corp., Shreveport, La.	110,128.12	96,148.66
Lowe, Delaney & Carter, DeLeon	1,416.76	1,294.12
Lowenstein Oil Co., Rockdale	699.67	475.76
Lucey Petroleum Co., Dallas	118,458.82	116,089.63
Luling Oil & Gas Co., San Antonio	27,268.10	26,722.73
Lytle, C. F., Mexia	6,651.51	6,073.48
Mc		
McAlbert Oil Co., Houston	26,281.11	21,584.85
McBridge, W. C., Inc., St. Louis, Mo.	4,495.07	3,838.07
McBride, L. C., Dallas	4,151.68	4,068.65
McBride, Lawrence, Jr., receiver, Dallas	4,320.31	4,233.90
McCamey, George B., Fort Worth	4,133.96	4,051.28
McCarter, R. C., Rising Star	828.80	761.41
McCartey Oil Co., Wichita Falls	41,118.42	40,577.92
McCarty, W. W., and Edward T. Martin, Wichita Falls	5,134.21	4,108.79
McChesney, Nancy, Olney	2,807.68	2,452.03
McClanahan, D. E., Vernon	208.36	188.02
McClanahan & Venable Oil Co., Tyler	53,670.93	52,597.41
McClintock, J. G., Amarillo	4,009.00	3,011.24
McConnell, Will H., trustee, Tyler	4,557.85	4,466.69
McCrary, E. W., Tulsa, Okla.	3,706.78	3,348.83
McCulloch Oil Co. of Texas, Tyler	13,572.35	13,300.89
McCurdy & Easter, McCamey	7,430.98	4,830.13
McCutchen, C. E., trustee, Wichita Falls	4,280.60	4,240.57
McCutchin, Alex U., Arp	14,212.66	12,698.92
McDaniel, D. B., Houston	50,330.55	40,910.62
McDaniel Oil Corp., Cisco	2,288.81	2,284.24
McDonald, C. C., receiver, Longview	4,814.69	4,718.39
McEntire, J. B., trustee, Tyler	5,371.10	4,703.68
McIlroy Oil Co., Amarillo	19,078.28	14,627.79
McJunkin, Florence F., et al, Tulsa, Okla.	299.06	297.52
McLester Oil Co., Eastland	8,862.53	8,729.98
McMahon, C. L., Tulsa, Okla.	69,086.71	67,699.10
McMurray, J. L., et al, Cisco	1,728.83	1,722.00
McMurray, Root & Rhodes, Eastland	398.00	398.00
McMurrey & Fair, Tyler	11,952.39	11,713.34
McNallen & Griffin, Tulsa, Okla.	5,108.51	4,761.54
McNally, F. B., Corsicana	4,424.27	4,335.78
McNamara Oil Co., Beaumont	276.77	197.18
McVey, M. V., Kilgore	3,492.00	3,422.16
M		
M. B. G. Oil Co., Dallas	5,864.22	4,245.70
Mabee, J. E., Oil Co., Tulsa, Okla.	39,610.08	38,817.88
MacDermott, W. F., Fort Worth	525.08	498.30
Mack Oil Co., Pearland	2,546.49	2,291.82
Macknold Co., San Antonio	110.93	77.25
Macmillan, Gordon, agent, Tyler	6,786.55	6,650.81
Madden, E. B., Olney	9,094.31	8,927.94
Madden & Hunt, Olney	4,887.88	4,887.88
Madison Oil & Gas Co., Electra	2,528.50	2,528.50
Magee, R. B., Wichita Falls	1,516.20	1,326.67
Magnolia Petroleum Co., Dallas	3,296,675.05	2,852,662.87
Mahaney, C. L., Oil Co., Dallas	4,270.83	4,162.03
Mahaney & Hill Petroleum Corp., Dallas	4,378.18	4,267.26
Malernee-Bullock Oil Co., Oklahoma City, Okla.	10,797.64	10,581.69
Manahan Oil Co., Tulsa, Okla.	31,076.00	30,454.44
Manson Oil Co., Chickasha, Okla.	23,329.00	22,862.42
Manziel, Bobby, Gladewater	4,257.76	4,177.50
Manziel, Bobby, Gladewater	4,641.19	4,548.36
Manziel, Bobby, Gladewater	3,291.27	3,225.44
Manziel, Bobby, Gladewater	3,802.00	1,901.00
Manziel, Joe, Gladewater	3,776.38	3,700.84
Marcell & Perkins, Olney	1,182.03	1,163.21
Marfinwood Oil Co., Corsicana	1,528.00	611.20
Margaret Oil Co. and B. Welch, Cross Plains (1-1 to 9-30-32)	424.01	384.08
Margay Oil Corp., Tulsa, Okla.	57,921.72	56,763.30
Marine Corp., Dallas	30,880.43	30,082.80
Marine Production Co., Longview	6,901.00	3,450.50
Marine Production Co., Longview	10,857.67	10,640.51
Markham & Dunning, Fort Worth	17,292.77	16,946.93
Mar-La-Fay Oil Co., Tyler	5,287.21	5,181.36
Marlin Oil Synd. (M. O. Swallow, receiver), Longview	5,647.00	5,534.29
Marnet Oil & Gas Co., Tulsa	3,727.75	3,504.09
Marr Drilling Co. (J. E. Marr), Tyler	3,726.34	3,655.82
Martin, F. W., & Co., Tulsa	2,937.78	2,878.02
Martin, N. H., Wichita Falls	8,978.80	8,161.55
Martin, Drake & Jones, Houston	14,270.26	11,416.19
Martin & Hamilton, Wichita Falls	3,076.21	2,872.14
Marts, E. R., Dallas	1,926.48	1,394.43
Massie, J. H., Wichita Falls	51,398.58	51,050.37
Maverick Oil Co., Tyler	8,188.17	8,024.42
Maxson, W. E., Jr., Wichita Falls	14,716.03	11,986.23
Maxwell, J. C., Fort Worth	16,292.15	10,796.28
Mayberry, C. R., Co., Laredo	1,630.99	1,304.79
Maynard and E. S. Taxman, Wichita Falls	2,986.39	2,975.56
Mays, R., Fort Worth	612.35	612.35
Mead Oil Co., Tulsa, Okla.	4,126.84	4,044.30
Mecom Oil Co., Liberty	1,779.42	1,423.54
Medina Oil and Gas Association, San Antonio	70.92	51.06
Mendenhall Oil Co., Cisco	714.99	714.99
Menke, John G., Wichita Falls	695.29	695.29
Mercury Petroleum Corp., Fort Worth	8,109.19	7,947.00
Meredith & Gant, Wichita Falls	1,489.83	1,312.95
Meridian Petroleum Corp. of Texas, Tulsa, Okla.	33,413.86	32,503.30
Merren, K. E., Shreveport, La.	8,545.48	8,374.57
Merren, K. E., trustee, Shreveport, La.	8,330.74	8,213.12
Merrick, John F., Wichita Falls	4,583.64	4,496.85
Merrick, John F., Wichita Falls	3,591.27	3,519.44
Merrick, F. W., Inc., Ardmore, Okla.	18,237.26	17,872.52
Merrick & Belcher, Wichita Falls	7,392.24	7,392.24
Merrick & Bristow, Ardmore, Okla.	36,996.45	17,547.04
Merrick & Goldsmith, Wichita Falls	2,386.12	2,386.12
Merrick & Lamb, Ardmore, Okla.	24,179.04	16,730.38
Merry Brothers & Perini, Inc., San Angelo	18,091.30	16,928.62
Midas Oil Co., Dallas	30,086.95	29,485.20
Mid-Continent Petroleum Corp., Tulsa, Okla.	10,715.05	10,396.42
Mid-Kansas Oil & Gas Co., Findlay, Ohio	3,591,916.51	2,568,008.52
Mid-Tex Oil & Gas Co., Abilene (April 1 to August 31)	128.12	117.26
Mid-Tex Production Co., Breckenridge	10,095.84	9,480.81
Midwest & Gulf Co. of Texas, Tulsa, Okla.	2,532.63	2,051.97
Miller, Paul L., Kilgore	20,726.82	20,312.30
Millery-Lacy Oil Co., Shreveport, La.	2,319.85	2,273.45
Millikin, L. L., Burkburnett	319.11	269.06
Mills Bennett Production Co., Houston	404,698.96	334,642.55
Mills & Garitty, Corsicana	2,268.82	1,815.05
Minnesota-East Texas Oil Co., Duluth, Minn.	4,029.17	3,948.59
Minntex Oil Corp., Wichita Falls	594.51	402.84
Minor Oil Co., Beaumont	5,622.66	4,498.12
Mitcham, G. P., Dallas	21,057.00	20,078.25
Mitchell, Frank A., Wichita Falls	4,407.23	4,158.21
Mohawk Oil Co., Tulsa, Okla.	12,603.06	12,351.01
Mollberg, B. C., trustee, Austin	13,695.60	13,421.71
Montgomery-Rea-Montgomery, Sedwick	881.20	848.82
Moody Corp., Lewis Fisher and J. W. Keeland, receivers, Houston	195,041.04	141,424.72
Moody-Seagraves Producing Co., Houston	133,221.67	112,210.09
Mook-Texas Oil Co., Fort Worth	17,201.23	16,686.88
Moore, Adrian, Houston	35,398.38	34,062.06
Moore, E. H., Tulsa, Okla.	10,467.87	10,258.51
Moore, N. A., Eastland	122.99	112.48
Moran, E. J., Dallas	3,750.60	3,675.62
Moran, J. J., et al, Wichita Falls	3,144.17	2,537.68
Moran Co., The, Wichita Falls	6,909.65	6,470.39
Mordyan Petroleum Co., Pampa	18,455.05	15,897.04
Morgan, Ray, et al, Fort Worth	679.46	652.27
Morton, A. D., Tulsa, Okla.	4,464.43	4,375.14
Moses, E. I., Luling	620.49	465.37
Moss, H. S., Dallas	21,620.44	21,188.03
Moss, H. S., special, Dallas	7,888.19	7,730.42
Moss, Urschel & Keys, Dallas	3,193.61	2,886.95
Moss, H. S., and J. E. Urschel, Dallas	48,546.91	46,763.51
Mount & Lee, Inc., Wichita Falls	974.67	918.02
Moutray Oil Co., Abilene	2,347.86	1,895.67
Mudge Oil Co. of Texas, Pittsburgh, Pa.	65,042.33	63,741.48
Mues & MacDermott, Fort Worth	401.05	371.23
Mullendore, Berry & Berry, Cleveland, Okla.	42,609.44	41,757.38
Munger, L. R., Dallas	7,403.35	7,255.28
Murchison Oil Co., Dallas	52,681.58	35,535.46
Murchison & Cranfill, Wichita Falls	908.39	908.39
Murphy, O. G., trustee, El Dorado, Ark.	20,478.96	20,069.39
Murphy, J. F., trustee, Sapulpa, Okla.	4,223.64	4,139.17
Murphy, J. F., trustee, Sapulpa, Okla.	4,329.81	4,243.22
Murphy, Rodgers & Lanier, Marshall	4,732.46	4,637.81
Murray, J. M., trustee, Tulsa, Okla.	5,587.00	2,160.37
Murray Oil Co., Overton	15,487.86	14,121.15
N		
Nabob Oil & Gas Co., Amarillo	9,061.63	7,094.43
Nash & Strickland, Henderson	8,026.21	7,865.69
Nash, Windfohr & Perry, Austin	29,670.45	21,802.85
Nash & Windfohr Corp., Graham	46,895.81	44,000.34
Albert Nathan, Tulsa, Okla.	3,723.82	3,649.35
National Oil Co., San Antonio	528.68	364.95
National Oil & Grease Co., Dallas	28,008.79	28,580.39
National Securities Oil Co., J. F. Lucey, receiver, Dallas.	4,697.00	4,602.74
Navarro Oil Co., Houston	166,951.29	156,785.11
Neversuch Oil Co., Mexia	7,334.44	7,334.44
New Process Production Co., Dallas	3,361.64	3,255.21
Newton & Lillie, Goose Creek	13,892.09	11,113.67
Newton-Palmer Oil Co., Rockdale	308.33	183.46
Newport & Ohio Petroleum Co., Newport, N. Y.	462.69	451.89
Nichols, C. F., and Trio Oil Co., Beeville and Seguin	14,140.00	14,140.00
Noack & Lanning, Rockdale	1,146.73	783.58
Noack Oil Co., Rockdale	859.83	581.68
North Fork Oil Co., Amarillo	3,777.06	3,090.85
Northern Oil Co., Amarillo	6,482.89	5,704.95
Number Nine Oil Corp., Tulsa, Okla.	2,680.47	2,626.13
Nutt & Gates, Wichita Falls	1,464.58	1,464.58
O		
O. W. R. Oil Co., Inc., Dallas	17,007.03	16,666.89
O. A. Co., Laredo	1,154.29	923.43
Oakes, Roscoe F., and E. E. Combs, Assocs., San Francisco, Cal.	25,105.54	24,603.41
Oasis Oil Co., Wichita Falls	38.69	36.36
O'Brien, W., Amarillo	547.43	394.15
O'Connell Oil Corp., Boston, Mass.	8,550.00	8,379.60
Odom, T. L., receiver, Elzey Drilling Co., Tyler	3,546.93	3,475.99
O'Hern, J. J., Laredo	13,114.03	12,851.73
Oils, Inc., Oklahoma City, Okla.	8,369.07	8,142.47
Oil Properties, Inc., Houston	3,997.30	3,917.35
Oil Securities Co., Ltd., Bob Bradshaw, trustee, Tulsa, Okla.	611.75	491.60
Odom, Wm. P., Iowa Park	1,255.77	1,086.86
Olean Petroleum Co., Bristow, Okla.	11,511.03	9,110.93
Olney Oil & Refining Co., Wichita Falls	80.82	71.12
Olvey, J. W., and Clark Sample, El Dorado, Ark.	26,082.55	25,560.91
Omega Oil Co., Longview	7,371.23	7,223.38
Omilak Oil Co., Somerset	128.07	93.34
O'Neil, John, Wichita Falls	9,679.20	9,485.51
O'Neil, Ignatius P., Tyler	8,273.95	8,108.47
Operators Royalty & Producing Co., Tulsa, Okla.	38,932.38	34,012.20
Orange Petroleum Corp., Orangefield	19,726.05	15,780.12
Oriental Oil Co., Dallas	4,780.34	4,578.24
Overton Refining Co., Overton	163,601.63	160,329.60
Overton Refining Co., Overton	1,881.44	1,843.81
Owen, John, trustee, Tyler	4,386.21	4,298.15
Owens, Sherwood B., Brownwood	1,389.19	1,389.19
Owen-Sloan Oil Co., Tulsa, Okla.	23,553.52	15,309.79
Owenwood Pool No. 3, J. W. Robins, trustee, Fort Worth	18,209.21	17,650.23
P		
Pace Petroleum Corp., Charles H. Allen, trustee, Oklahoma City, Okla.	22,842.49	20,925.72
Pace, George L., Dallas	14,361.39	13,903.72
Pace & Ward, Breckenridge	1,035.49	994.13
Pace, Glenn A., Borger	4,286.00	4,200.28
Palm City Oil Co., McAllen	183.88	151.10

Name and address—	Barrels	Value
Palmer & Burch, Inc., Wichita Falls	4,970.00	4,751.58
Palmer, Freddie, Oil Co., Rockdale	50.91	46.73
Pampa Production Co., Pampa	2,920.54	2,570.08
Panhandle Refining Co., Wichita Falls	75,174.71	67,815.08
Panhandle & Santa Fe Railway Co., Wichita, Kans.	2,715.95	2,415.37
Pansota Oil Co., Amarillo	3,304.66	2,499.64
Paraffine Oil Co., Houston	8,724.33	6,979.51
Patterson Drilling Co., W. M. Preston, receiver, Dallas	13,310.47	10,646.73
Patterson Drilling Co., Inc., Henderson	4,692.02	4,593.18
Pearce & Moore, Tyler	4,910.65	4,810.44
Pearson Oil Co., San Antonio	96.00	48.00
Pecos Crude Oil Purchasing Co., San Angelo	1,483.18	778.67
Peery, Thomas H., Wichita Falls	9,682.02	9,499.22
Pelican Natural Gas Co., Inc., Shreveport, La.	19,523.92	19,133.45
Pemeta Oil Co., Fort Worth	2,864.16	2,796.19
Penn Oil Co., Dallas	13,567.40	9,449.95
Pennowa Oil & Gas Co., Skiatook, Okla.	7,467.65	5,617.74
Perkins & Cullum, Wichita Falls	58,513.68	57,194.91
Perkins & Snider lease, Wichita Falls	1,007.50	1,003.14
Permian Oil Co. and Gibson & Johnson, Inc., Fort Worth	2,131.38	2,131.38
Perren & Fell, Dallas	23,214.84	22,750.54
Perry, C. Edmund, Shreveport, La.	8,096.96	7,935.03
Peter, H. W., Wichita Falls	246.30	246.30
Petroleum Finance Corp. of Texas, Dallas	46,589.07	45,657.29
Petroleum Investment Co., Wichita Falls	2,691.86	2,634.34
Petroleum Marketing Corp., Houston	38,500.36	37,730.35
Petroleum Producers Co., Wichita Falls	84,769.45	80,771.85
Petroleum Producers et al, Wichita Falls	2,965.75	2,965.75
Peyton Brothers, Mexia	12,927.59	12,712.15
Phillips, B. F., Gladewater	16,633.05	16,302.36
Phillips & Bennett, Mexia	4,368.51	4,281.14
Philip Brothers, Beaumont	4,274.86	3,419.89
Phillips-Currie, Amarillo	443.42	304.04
Phillips Petroleum Co., Bartlesville, Okla.	1,055.90	737.41
Phillips Petroleum Co., Bartlesville, Okla.	1,983.40	1,709.27
Phillips Petroleum Co., Bartlesville, Okla.	412,082.73	291,444.95
Phillips Petroleum Co., Bartlesville, Okla.	26,699.18	24,708.93
Phillips Petroleum Co., Bartlesville, Okla.	37,408.83	24,315.73
Phillips Petroleum Co., Bartlesville, Okla.	8,050.25	5,232.66
Phillips Petroleum Co., Bartlesville, Okla.	23,481.13	15,262.80
Phillips Petroleum Co., Bartlesville, Okla.	19,582.57	13,731.25
Phillips Petroleum Co., Bartlesville, Okla.	77,806.03	50,573.97
Phillips Petroleum Co., Bartlesville, Okla.	102,465.43	93,851.35
Phillips Petroleum Co., Bartlesville, Okla.	29,977.93	29,527.65
Phillips Petroleum Co., Bartlesville, Okla.	751.37	746.34
Phillips Petroleum Co., Bartlesville, Okla.	6,918.65	6,335.09
Phillips Petroleum Co., Bartlesville, Okla.	7,668.81	7,668.81
Phillips Petroleum Co., Bartlesville, Okla.	4,388.07	4,385.22
Phillips Petroleum Co., Bartlesville, Okla.	1,260.18	1,260.18
Phillips Petroleum Co., Bartlesville, Okla.	832.89	738.09
Phillips Petroleum Co., Bartlesville, Okla.	179,887.29	154,278.38
Phillips Petroleum Co., Bartlesville, Okla.	6,499.35	6,410.66
Phillips Petroleum Co., Bartlesville, Okla.	13,409.80	12,626.81
Phillips Petroleum Co., Bartlesville, Okla.	3,995.71	3,822.41
Phimack Oil Co., Tyler	9,145.54	8,962.64
Pine Grove Oil Co., Tyler	13,493.49	13,223.61
Pine Lodge Oil Co., Houston	4,247.97	4,163.01
Pine Petroleum Co., Henderson	67,700.45	39,016.57
Piney Oil & Gas Co., New York, N. Y.	3,606.12	2,703.93
Pinto Oil Co., Mineral Wells	74.56	61.17
Pioneer Oil, Gas & Refining Co., Danville, Ill.	736.01	544.63
Piper, L. E., trustee, Vernon	1,401.67	1,380.59
Pittman Oil Corp., Fort Worth	19,195.02	13,675.01
Pitzer & West, Breckenridge	22,490.34	21,692.69
Pivoto, M. E., Sour Lake	6,120.67	4,896.53
Plains Production Co., Inc., Dallas	4,000.00	1,600.00
Plummer & McDaniel, Houston	3,709.47	3,635.30
Plummer, Albert, Houston	12,404.05	12,155.97
Plymouth Oil Co., Pittsburgh, Pa.	51,404.52	33,412.94
Pointer Oil Co., Waco	8,176.24	8,012.74
Pois, Fine & Schuiz, Wichita Falls	181.05	177.43
Pois, M., et al, Wichita Falls	2,987.79	2,944.74
Pollard, W. B. and C. E., Pampa	3,211.76	2,709.46
Poole, B. O., Batson	1,468.60	1,174.89
Pope, Ernest, Saratoga	309.12	247.30
Porterfield, R. R., Tyler	2,452.50	2,317.41
Portland Drilling Corp., Wichita Falls	490.67	474.90
Postelle, J. F., et al, Fort Worth	2,851.10	1,913.21
Powell, J. L., estate, Wichita Falls	313.46	297.75
Powell & Irion, Inc., Gladewater	13,449.36	12,957.19
Powers Production Co., Houston	56,746.48	47,591.04
Pratt, D. C., Mineral Wells	1,688.50	1,587.18
Pratt, Thos. H., Breham	180.58	141.60
Premier Oil Corp., R. O. Kniveton, receiver, Tyler	7,796.00	7,516.32
Price, Russell & Co., Ranger	2,244.93	2,219.13
Prichard, L. H., Oklahoma City, Okla.	4,109.14	4,026.96
Prine, J. C., Mobile, Ala.	3,493.57	3,423.69
Prine, J. C., et al, Jackson, Miss.	4,338.68	4,251.90
Proctor, George, Wichita Falls	9,051.11	9,051.11
Producers Drilling Co., Wichita Falls	1,090.99	1,089.82
Production Purchasing Co., Fort Worth	4,212.65	4,212.65
Producers & Refiners Corp. of Texas, Independence, Kans.	827.84	778.22
Producers Supply & Tool Co., The, Marietta, Ohio	23,448.50	22,838.40
Professional Oil Co., Waco	8,529.24	8,368.67
Professional Oil Co., Waco	5,330.77	5,224.17
Prudential Oil Co., Beaumont	7,903.05	7,033.74
Pugh-Hickman Drilling Co., Inc., Shreveport, La.	28,096.55	27,534.60
Pure Oil Co., The, Chicago, Ill.	3,502,754.96	3,076,793.51
Pure Oil Co., The, Chicago, Ill.	799,340.87	693,067.62
Pursel, Carl, Tulsa, Okla.	11,834.60	11,227.07
Putnam Oil Co., Tulsa, Okla.	28,002.48	25,784.28
Putnam Supply Co., Albany	3,711.96	3,348.60

Q

Quad Corp., Dallas	18,047.77	17,686.90
Quicksand Oil Co., Pampa	4,518.00	3,976.32
Quinan, H. W., Yreka, Calif.	534.03	384.03

R

Raizen Bros. Oil Co., Chickasha, Okla.	8,770.35	6,933.44
Rajo Oil Corp., Fort Worth	33,181.41	32,717.79
Ramming, Staley & Ramming, Wichita Falls	286.54	229.26
Ramming, R. W., Wichita Falls	152.08	150.76
Ramsel, W. T., Oil Co., Rockdale	1,026.66	596.66
Rancho Oil Co., Fort Worth	70,799.59	68,861.04
Randall, W. S., Oil Corp. of Texas, San Antonio	4,154.47	4,071.38
Ranell Oil Co., Oklahoma City, Okla.	2,487.79	1,959.67
Ransom, M. W., trustee, Shreveport, La.	4,276.22	4,190.70
Rathke Oil Co., Wichita Falls	14,830.36	14,637.90
Ray, George B., Tyler	24,958.46	24,459.30
Reclamation Co., The, Fort Worth	1,890.32	1,737.07
Rector & Davidson, Corsicana	4,325.36	4,238.85
Red River Oil Co., Tulsa, Okla.	21,017.14	20,222.90
Red Star Oil Co., McAlester, Okla.	34,675.72	33,982.22
Reed, Crenshaw & Glass, Nowata, Okla.	5,480.15	5,316.58
Refugio Oil Corp., Houston	7,491.46	7,208.86
Redick & Hugus Oil Co., Tyler	4,666.51	4,573.13
Regan, J. T., Rising Star	652.24	651.63
Reinhart, M. J., trustee, Oklahoma City, Okla.	271.00	260.16
Reno Oil Co., Sistersville, W. Va.	40,348.45	39,087.23
Rentex Oil Co., San Antonio	5,338.14	4,144.44
Republic Production Co., Houston	405,435.75	345,611.41
Republic Supply Co., Houston	13,204.42	10,787.00
Reserve Petroleum Co. of Texas, Tulsa, Okla.	33,436.18	32,761.58
Retsel Drilling Co., Inc., Henderson	5,418.37	5,249.91
Moore, R. A., receiver, Rex Petroleum Corp., Orange	4,399.43	3,519.53
Reynolds, Roy A., Fort Worth	28,813.39	28,237.06
Rhoads Drilling Co., Fort Worth	911.24	893.02

Name and address—	Barrels	Value
Rhoads Drilling Co., Fort Worth	16,698.03	16,364.08
Rhodes & Highers, Breckenridge	13,082.62	11,826.76
Rhodes, W. J., Breckenridge	884.34	866.64
Ribble, O. C., South Bend	267.00	218.76
Rice Drilling Co. and Kouns, Shreveport, La.	6,855.95	6,728.62
Ricardo, W. C., Athens	158,671.69	118,329.95
Richardson-Callahan Syndicate, Dallas	15,313.21	9,827.59
Richardson & Kelsey, Fort Worth	65,731.16	42,718.76
Richmond Drilling Co., Texon	2,441.43	1,536.92
Rieger, Cy, Amarillo	1,353.52	952.09
Riggs, E. R., Graham	24,522.84	24,399.10
Right-of-Way Oil Co., Fort Worth	521.83	465.97
Rimmer-Luttes-Hamilton, Longview	3,995.95	3,916.03
Riner & Bailey, Wichita Falls	15,609.41	15,414.60
Riner & Omohundro, Wichita Falls	7,574.88	7,188.45
Riner, Roy L., Wichita Falls	5,332.81	5,226.16
Rio Bravo Oil Co., Houston	282,503.42	236,560.04
Rio Oil Corp., Fort Worth	884.33	884.33
Rixford, S. J., et al, Grandfall	1,045.00	878.62
Roane Petroleum Co., Dallas	5,265.96	5,160.64
Robbins, et al, Longview	3,803.83	3,727.76
Robert Oil Corp., Breckenridge	41,772.73	40,505.57
Roberts, H. W., Wichita Falls	2,059.26	1,972.08
Roberts, J. T., Production Co., Longview	7,718.91	7,563.82
Roberts-Roscoe, Henderson	17,265.26	12,812.74
Robertson Drilling Co., M. L. Witherup, receiver, Tyler	4,212.99	4,128.73
Robertson, R. R., Wichita Falls	3,239.84	2,980.74
Robinson, Arthur A., Dallas	21,195.62	20,119.18
Robinson, J. B., Sour Lake	193.27	154.62
Robinson, O. D., Pittsburgh, Pa.	947.72	826.86
Rochmill, Henry, trustee, Fort Worth	192.00	182.40
Rochelle, R. C., Dallas	4,143.72	4,060.85
Rock Creek Oil Corp., Amarillo	4,782.00	2,939.71
Rockwell, J. A., & Co., Warren, Pa.	1,716.61	1,603.18
Rockwood Oil Co., McAlester, Okla.	4,407.80	4,319.64
Rocky Mountain Oil Co., Longview	8,935.86	8,758.11
Roeser & Pendleton, Inc., Fort Worth	288,678.95	281,303.15
Rogers, Dan D., Dallas	4,224.64	4,140.14
Rogers, G. B., receiver, Waco	4,303.28	4,217.22
Rolyat Production Co., Houston	2,796.00	2,237.61
Root, G. M., Eastland	5,187.00	4,975.00
Root & Fehl, Eastland	1,029.00	912.00
Root-Rhodes Oil Co., Eastland	9,299.00	8,894.00
Root, Rhodes, Gilman & McMurray, Eastland	3,459.00	3,450.00
Ross, Dwight M., Wichita Falls	1,247.88	1,239.60
Roth & Faurot Oil & Gas Co., The, Independence, Kans.	2,322.28	2,322.28
Rountree & Caudle, successors to Rountree & Kemp, Rockdale	252.87	171.95
Rowan & Bristow, San Antonio	16,737.10	16,402.36
Rowan & Nichols Oil Co., Fort Worth	16,164.35	15,841.05
Rowe, Annie M., Wichita Falls	1,908.29	1,888.29
Royal Petroleum Corp., Dallas	5,433.00	5,324.72
Royal Petroleum Corp., Dallas	7,826.00	7,668.62
Rubsam & Hunter, Wichita Falls	3,657.09	3,496.87
Rushing, T. S., El Dorado, Ark.	19,486.62	19,095.92
Rusk Crude Oil Co. & Phoenix Crude Pet. Co., Birmingham, Ala.	12,217.43	11,973.07
Rusk Refining Co., Overton	28,308.26	27,742.09
Ruston Drilling Co., Inc., Ruston, La.	16,693.12	16,359.26
Russell & Wilson, Wichita Falls	6,172.95	4,908.70
Rutherford, Pat, receiver, Corpus Christi	19,769.55	19,691.81
Ruyle Farm & Oil Co., Wichita Falls	5,537.72	5,417.35
Ryan Consolidated Petroleum Corp., Tulsa, Okla.	42,380.11	37,010.59
Rycade Oil Corp., Houston	7,574.63	6,211.17
Ryman, J. Nye, trustee, Gladewater	10,866.86	6,733.11

S

Sabinas Oil Corp., Longview	67,442.05	66,094.20
Saigh, N. A., San Antonio	573.76	447.54
Sakaba Oil Corp., Inc., Shreveport, La.	20,050.30	19,649.26
Salado Oil Co., San Antonio	1,235.67	988.54
Salmon Oil Co., Dallas	7,390.00	7,242.20
San Diego Oil Corp., San Antonio	43,724.26	34,979.40
Sandcreek Oil Co., Amarillo (.25)	1,214.00	303.50
Sandefer-Atkinson-Daniel Oil Corp., Breckenridge	1,870.85	1,807.06
Sanford Co., Inc., Tyler	3,771.00	3,695.43
Saratoga Oil Co., Wichita Falls	496.12	493.15
Sarnosa Oil Corp., San Antonio	704.25	563.40
Satellite Oil Co., Tulsa, Okla.	16,367.36	16,040.00
Savoy Oil Co., Tulsa, Okla.	10,810.27	7,026.67
Saxet Oil Co., Houston	104,533.87	86,380.31
Sayre Oil Co., Glencoe, Ill.	33,345.32	32,678.43
Scarborough, W. A., Burkburnett	929.98	836.95
Scarborough & Ruder, Wichita Falls	1,401.18	1,393.64
Schaffner & Wilson, Brownwood	1,072.99	1,072.99
Schaffner, E. N., et al, Cross Plains	561.95	438.07
Schermerhorn-Winton Co., Tulsa, Okla.	66,514.98	43,234.74
Schmerhorn Oil Co., Tulsa, Okla.	57,694.78	37,588.50
Schleffke & Blair, Electra	11,441.11	11,441.11
Schlicher Oil Co., Beaumont	1,938.34	1,550.68
A. H. and S. P. Schmitt, Fort Worth	7,462.52	7,381.49
Schoolfield, R. E., Wichita Falls	232.69	216.65
Schroeder, T. S., Dallas	12,886.00	12,629.00
Schulz & Weaver, Wichita Falls	11,079.44	10,855.19
Scott & Britton, Graham	127.67	120.00
Scott & Nance, Graham	1,700.51	1,617.13
Sea Gull Oil Corp., Tyler	4,351.00	4,263.98
Sec. 92 Production Acct., Pecos	3,579.19	2,326.48
Security Natl. Bank of Wichita Falls, Wallace Lease, Wichita Falls	503.24	493.17
Security Natl. Bank of Wichita Falls (Mid-Continent Holding Corp., Barry lease), Wichita Falls	254.95	222.76
Sedwick Oil Co., Tulsa, Okla.	5,264.81	4,739.03
Seitz-Comegys & Seitz, Inc., Wichita Falls	1,795.02	1,771.74
Selby Oil & Gas Co., Tulsa, Okla.	161,226.53	152,787.62
Sells Petroleum, Inc., Muskogee	34,605.34	34,033.70
Senter, E. G., Jr., Dallas	116.00	116.00
Sentinel Oil Corp., Dallas	4,848.59	4,751.62
Sequoia Oil Co., Fort Worth	5,136.14	3,492.58
I. P. Sessions, Rockdale	238.94	230.48
Seybert Bros., Mooringsport, La.	2,238.57	2,238.57
Shaffer, J. C. and Margaret L., Coleman	5,092.37	4,396.56
Shamrock Oil & Gas Co., Amarillo	113,585.45	88,558.28
Shankle Newton Oil & Gas Co., Inc., Laredo	26,849.85	21,479.89
Shano Oil Co., Longview	38,425.40	37,656.89
Shappell Oil Co., Wichita Falls	28,274.54	27,740.55
Shasta Oil Co., Longview	58,524.06	57,340.76
Shaw Oil Co., Dallas	49,892.11	47,882.92
Sheffield Oil Co., Houston	2,286.00	2,531.34
Shelburne, Sam P., Oklahoma City, Okla.	8,695.15	8,521.25
Shell Petroleum Corp., St. Louis, Mo.	1,836,989.08	1,564,560.68
Sherman Oil & Gas Co., Sherman	1,095.85	791.61
Shertyn Bros., Dewey, Okla.	5,081.99	5,081.99
Shiloh Oil Co., A. L. Brin, trustee, Dallas	3,266.03	3,200.71
Showalter-Russell & Trentman Oil Corp., Longview	5,027.70	4,927.13
Showers & Moncrief, Inc., Longview	22,835.00	22,378.30
Louis Sikes, Tyler	31,602.71	30,970.66
Silver Star Oil Co., McAlester, Okla.	26,228.39	25,422.85
Simmons, T. K., Tulsa, Okla.	1,882.37	1,633.11
Simms Oil Co., Dallas	737,670.72	566,869.83
Simplex Oil Co., Inc., Shreveport, La.	4,294.95	4,209.06
Simpson-Fell Oil Co., et al, Ardmore, Okla.	5,528.22	4,591.04
Sinclair Prairie Oil Co., Houston	238,271.13	194,393.38
Sinclair Prairie Oil Co., Tulsa, Okla.	2,380,066.31	2,234,083.35
Joel Sink, Corsicana	183.00	176.00
Sioux Oil Corp., Rio Grande City	9,527.00	6,191.88
Sipe Springs Oil Co., Tulsa, Okla.	3,131.39	3,000.00
Sircovich, A., and Mrs. F. M. Thomas, Putnam	287.96	284.83
Skelly Oil Co., Tulsa, Okla.	469,711.32	374,197.59
Skia-Tex Petroleum Co., Amarillo	19,594.88	15,053.84
Skinner, Earl C., Oil Co., Saratoga	2,432.26	1,945.80

Name and address—	Barrels	Value
Skipper-Bivins Oil Co., Inc., Longview	9,866.54	8,669.21
Skipper, B. A., Oil Co., Inc., Longview	4,216.39	4,131.08
S. & L. Oil Co., Dallas	17,532.58	11,335.78
Slicker, Homer, Cisco	558.24	513.67
Slick-Seeligson, Inc., Oklahoma City, Okla. (1.02)	38,326.37	39,103.64
Smith, C. R., Ella Buffington, et al, Grandfalls	899.21	545.75
Smith, E. L., Oil Co., Inc., Mexia	123,897.23	109,243.50
Smith, H. R., Inc., Luling	43,321.63	42,455.20
Smith, H. R., et al, Luling	4,126.73	4,044.19
Smith, Mrs. J. L., Amarillo	3,688.71	2,753.32
Smith, J. R., Properties, M. O. Swallow, receiver, Longview	12,139.04	11,896.61
Smith, L. D., Athens	164,784.77	111,043.59
Smith, Levi, et al, Texon	5,159.59	5,159.59
Smith, Rex D., Burkburnett	404.42	356.56
Smith, Victor C., A. L. Slaughter, receiver, Dallas	10,817.30	9,235.95
Smith, W. Claude, San Antonio	2,339.63	2,199.25
Smith & Ash, Wichita, Kans.	18,024.22	15,861.33
Smith-Bohlssen Oil Co., Houston	4,343.64	4,256.87
Sneed Bros., Tulsa, Okla.	3,843.93	3,767.05
Snowden & McSweeney Co., New York, N. Y.	82,843.15	80,084.62
Snyder, B. L., Dallas	5,805.84	5,687.71
Snyder, W. C., Ben Greer, et al, Tyler	4,786.76	4,691.02
Somerset Crude Oil & Refining Co., Somerset	2,046.08	1,471.00
Somerset Oil Co., San Antonio	732.67	512.87
Sonbar Corp., The, El Dorado, Ark.	25,070.61	24,569.20
South Oil Co., The, Rosston, Ark.	91.80	70.05
South Texas Oil Co., Laredo (1.13)	30,978.41	35,246.96
South Texas Petroleum Co., Houston	68,458.90	68,320.63
South Shore Oil Co., Houston	2,713.78	2,171.02
Southern Drilling & Production Co., Bay City	2,754.74	2,396.62
Southern Oil Corp. of America, Fort Worth	15,812.12	12,845.32
Southern Oil & Production Co., Eastland	972.63	922.38
Southern Petroleum Exploration, Inc., Sistersville, W. Va.	33,682.66	28,951.46
Southern Production Corp., El Dorado, Ark.	8,595.75	8,423.83
Southwest Drilling Co., San Antonio	18,444.78	14,755.82
Southwest Royalty Co., Wichita Falls	3,592.89	3,336.23
Sovereign Oil Corp., Dallas	2,230.61	2,186.00
Spandsco Oil & Royalty Corp., Dallas	69,365.72	66,445.38
Speed, C. D., Corsicana	274.13	264.56
Spencer, H. E., trustee, St. Louis, Mo.	399.10	379.01
Spencer, H. H., & Co., Burkburnett	124.47	124.47
Sprague Oil Co., Ardmore, Okla.	6,208.47	4,035.50
S. R. & G. Oil Corp., San Antonio	89,253.41	71,402.76
Staley, J. A., Wichita Falls	1,863.90	1,579.54
Standard Oil Co., The, of Kansas, Wichita, Kans.	69,057.88	67,676.70
Standard Pipe & Supply Co., Dallas	8,783.42	8,581.84
Stanolind Oil & Gas Co., Tulsa, Okla.	2,630,586.67	2,043,401.66
Stansylvania Oil & Gas Co., Amarillo	6,479.50	4,865.82
Stantex Petroleum Co., Oklahoma City, Okla.	7,296.12	7,150.19
Star Drilling Co., Wichita Falls	13,066.69	13,064.15
Stark, W. H., Orange	391.13	312.90
Starnes, C. R., et al Gladewater	7,934.00	7,775.32
States Oil Corp., Eastland	35,781.78	33,556.23
Steed, Paul P., Wichita Falls	287.00	256.81
Steen Drilling, Inc., Tyler	30,000.99	29,459.78
Stekoll, Harry, Tulsa, Okla.	25,262.60	23,360.24
Stella Oil Co., Beaumont	10,860.38	8,688.20
Stephens Oil Co., Sour Lake	562.29	450.07
Stewart Holdings, Inc., Tyler	6,468.75	6,358.38
St. Germain, R. J., Wewoka, Okla.	4,190.70	4,106.85
Stidham & Thrasher, Tyler	4,225.93	4,139.40
St. John, Amelia Avant, San Antonio	497.07	311.88
St. Mary's Oil & Gas Co., St. Marys, W. Va.	33,481.52	30,159.89
Stock, H. L, Plainview	1,425.51	1,371.35
Stoddard & Delaney, Dallas	17,653.43	17,300.36
Stodel Oil Co., Dallas	11,975.55	11,736.04
Stoops, J. P., Ranger	378.89	351.83
Storey Friebele Duffey Oil Co., Winston-Salem, N. C.	2,417.47	1,571.49
Storey Friebele Duffey Oil Co., Winston-Salem, N. C.	13,828.64	8,988.63
Storey Friebele Duffey Oil Co., Winston-Salem, N. C.	17,750.38	11,537.76
Stovall, D. M., Daisetta	1,216.96	973.57
Stovall, E. C., & Son, Graham	19,853.01	19,689.29
Strake Oil Corp., Houston	2,543.96	2,543.96
Stratton, Ed F., Pioneer	239.19	208.07
Straughan & Texannati, Mertzon	636.67	509.34
Strawn & Fisher, Electra	293.79	270.29
Strelsky, Joe, and Hefley, Rockdale	276.97	188.33
Strickland & Mullins, Henderson	3,433.71	3,365.03
Stroube & Stroube, Corsicana	87,371.04	84,027.72
Sturm-Nolen Drilling Co., Grandfalls	9,866.98	6,415.53
Summerfield Oil Co., Tulsa, Okla.	65.84	59.90
Summit Drilling Co., Tulsa, Okla.	27,972.00	27,402.76
Sun Oil Co., Dallas	1,959,725.06	1,764,851.74
Sunray Oil Co., C. H. Wright, receiver, Tulsa, Okla.	77,317.90	62,236.19
Sunset Oil Co., Amarillo	2,639.57	1,731.33
Superior Oil Co., Dallas	113,446.66	109,321.94
Supreme Oil Co., Orange	1,757.37	1,405.90
S. & W. Oil Co., Amarillo	2,09.966	1,385.78
Swanner, John L., Wichita Falls	2,771.34	2,483.82
Swearingen, W. R., et al, San Antonio	6,619.14	5,295.31
Swearingen Oil Co., San Antonio	2,041.49	1,521.25
Syndicate Oil Corp., Rochester, N. Y.	71.33	71.33

T

Tannehill, L. B., Albany	20,971.33	20,062.87
Tarver, A. H., Shreveport, La.	12,895.85	12,637.94
Tarver & Nance, Inc., San Antonio	3,766.00	1,852.50
Taubert & McKee, Tyler	7,106.12	6,964.29
Taxman, J. J. and M., Refining Co., Wichita Falls	5,769.61	5,654.22
Taylor-Link Oil Co., Houston	37,695.79	24,760.81
Taylor-Sibley Synd., Dallas	1,312.07	1,803.97
Teatsorth, L., et al, Eastland	713.57	592.96
Teci Production Co., Sayre, Okla.	1,049.00	957.57
Tegler, F. E., San Antonio	90.00	45.00
Tex Cal Oil Co., Brownwood	2,801.28	2,384.23
Texacal Oil & Gas Co., Glendale, Calif.	261.38	245.02
Texas Consolidated Oil Co., San Francisco, Calif.	8,173.04	7,812.18
Texas Fidelity Oil Corp., Louisville, Ky.	2,886.66	2,768.65
Texas Gas Co., Houston	19,092.19	15,273.74
Texas Gulf Producing Co., Houston	841,284.05	640,995.16
Texas Pacific Coal & Oil Co., Thurber	2,158.03	1,747.94
Texas Pacific Coal & Oil Co., Thurber	242,422.07	198,287.32
Texas Petroleum Co., San Antonio	26,835.45	18,044.02
Texas Plains Oil Co., Wichita Falls	14,209.38	11,871.53
Texas State Oil Co., Dallas	12,210.49	10,439.97
Texas Trading Co., Tyler	4,347.68	4,260.73
Texas Unity Oil Co., Houston	4,680.46	4,591.60
Tex-Jersey Oil Corp., Tyler	30,809.06	30,192.85
Texnia Oil Co., Wichita Falls	8,798.43	8,622.46
Texon Oil & Land Co., Fort Worth	50,252.60	32,664.20
Texota Corp., El Dorado, Ark.	8,445.35	8,276.44
Thaxton, Nannie S., Ex., W. H. Thaxton Est., Austin	238.05	226.95
Theis Oil Co., Sour Lake	3,132.79	2,506.22
The Texas Company, Houston	3,198,761.75	2,773,450.27
Thomas, J. A., Burkburnett	306.51	275.86
Thomas, Sam, trustee, Marshall	3,421.15	3,252.73
Thomas & Tarver, Inc., San Antonio	57,332.45	45,865.95
Thomasson, E. M., & Co., Inc., Denver, Colo.	68.78	66.03
Thomasson & Fitzsimmons, Shreveport, La.	3,975.25	3,935.75
Thomason, J. E., Humble	443.00	359.00
Thompson, John A., and R. A. Bristol, Fort Worth	432.19	423.55
Thralls, B. O., & Co., Breckenridge	1,621.78	1,496.92
Thweatt, J. D., Wichita Falls	620.65	597.35
Towns, M. K., San Antonio	15,928.37	15,609.71
Tidal Oil Co., Tulsa, Okla.	1,079,157.42	1,019,644.70
Tidnell, H. L., trustee, Graham	805.76	766.33
Tidwell, R. V., trustee, Graham	3,465.47	3,349.70
Tilton, Elvin, et al, Houston	2,095.72	1,676.58
Timms Dietsch Oil Corp., Amarillo	3,818.99	2,978.78
Timms Rogarty Oil Corp., Amarillo	481.60	345.26
Timms, E. T., Oil Corp., Amarillo	4,396.89	3,410.08
Timms Oil Corp., Amarillo	3,933.17	3,037.37
Timms Robinson Oil Corp., Amarillo	1,717.70	1,335.97
Timms Sutphen Oil Corp., Amarillo	679.54	496.14
Tow & Wolf, Eastland	842.72	-755.44
Trapp, M. E., Oklahoma City, Okla.	8,895.86	8,717.81
Trapshooter Reilly Oil & Royalties Co., San Antonio	45,318.20	38,984.12
Travelers Oil Co., Amarillo	6,964.90	5,254.23
Traylor-Rutherford Oil Corp., Refugio	18,791.52	15,033.22
Treat, E. M., Oil & Gas Co., Pittsburgh, Pa.	690.83	683.13
Trevino Oil Corp., Laredo	38,180.33	26,588.36
Triangle Oil & Gas Co., Rockdale	462.90	314.76
Triangle Petroleum Corp., Fort Worth	985.64	983.33
Triangle Petroleum Co., Inc., Fort Worth	323.18	319.24
Tribal Oil Co. of Texas, The, Big Spring	17,631.27	8,595.23
Trico Oil Co., Dallas	29,384.23	28,796.55
Trimount Petroleum Co., Shreveport, La.	4,188.84	4,188.84
Trinity Production Co., Wichita Falls	356.82	353.82
Tripplehorn, D. R., Pampa	6,530.50	5,724.18
Tripplehorn, J. W. and D. R., Fort Worth	2,053.20	1,961.21
Tutt, C. L., Arp	4,063.00	1,747.35
Tucker, Art, Graham	1,924.50	1,707.20
Tucker, W. B., Dallas	16,462.16	16,132.92
Tucker Oil Co., Wichita Falls	81,027.81	74,092.09
Tule Lake Oil Co., Corpus Christi	7,480.62	5,984.50
Allen, W. E., rpceiver, L. C. Turman	64,887.44	42,260.63
Turman Oil Co., Tulsa, Okla.	146,798.68	142,187.55
Turner, R. C., Loving	38.45	38.45
Turner, W. C., Ardmore, Okla.	21,139.16	20,716.38
Turner, J. H., Iowa Park	4,292.57	4,206.47
Towns, M. K., Luling	7,675.33	5,756.51
Twin Oil Co., Gladewater	8,568.00	8,396.64

U

Unacre Oil Co. of Texas, San Angelo	3,785.67	3,709.96
Underwood Drilling Co., Perkins Lease, Wichita Falls	1,908.37	1,809.60
Underwood Drilling Co., U-C Ward Lease, Wichita Falls	1,146.94	1,101.05
Underwood Drilling Co., Ward A. Lease, Wichita Falls	1,668.22	1,601.47
Underwood Drilling Co., Ward C Lease, Wichita Falls	381.01	318.01
Underwood Drilling Co., Underwood & Campbell Lease, Wichita Falls	1,328.38	1,301.80
Underwood Drilling Co., Erwin Lease, Wichita Falls	1,124.17	1,066.36
Ungren & Frazier, Abilene	11,693.09	11,387.00
Union Oil & Mining Co., Tulsa, Okla.	3,346.67	3,116.46
United Crude Oil Corp., Amarillo	11,389.66	9,251.64
United North & South Dev. Co., San Antonio	107,100.34	80,325.25
Union Oil Co. of Nevada, Los Angeles, Calif.	453.10	416.85
United Oil Corp., Wichita Falls	4,460.32	4,412.59
United Petroleum Co., The, Brownwood (4-1 to 9-30)	289.16	257.34
United Production Corp., Houston	519,749.86	494,158.52
United Producers Co., Wichita Falls	27,121.81	26,924.04
Unity Oil Co., Beaumont	9,353.00	7,502.00
Universal Oil, Gas & Mining Co., Shreveport, La.	8,514.00	8,368.31
University Lease, Sec. 24, Pecos County, San Angelo	2,533.34	1,646.68
Upchurch & Co., Tyler	8,594.46	8,422.57
Upland Oil Co. & Cady-Conner & Crenshaw, Tulsa, Okla.	6,489.65	5,134.50
Urban, et al, Ranger	517.91	491.54
Uscan Oil Co., Oklahoma City, Okla.	11,092.95	10,292.35

V

Van Cleave Trust, Baltimore, Md.	410.64	377.79
Van Wormer, F. E., Wichita Falls	2,796.46	2,732.10
Vaughn, G. H., Dallas	27,881.20	27,323.55
Vennex Oil Co. of Texas, Wichita Falls	28,991.14	27,665.07
Ventura Oil Co., Wichita Falls	3,668.40	3,595.03
Viersen, Sam K., Okmulgee, Okla.	13,266.95	13,001.62
Vigil Oil & Gas Co., Wichita Falls	2,910.19	2,710.64
Violet Oil Co., Corpus Christi	31,536.04	26,228.83
Vireca Corp., Houston	4,301.30	4,215.26
Virginia Oil Assn., Inc., Fort Worth	757.86	754.96
Virginia Oil & Ref. Co. (B. K. Isaacs, trustee), Fort Worth	23,661.73	23,188.16

W

Waco Oil Co., Waco	183.50	52.53
Wadley, J. W., Texarkana	3,487.66	1,495.35
Wadsworth, et al, Grandfalls	2,929.77	1,904.35
Waggoner, W. T., Est., Fort Worth	1,160.89	1,060.22
Waggoner, E. P., and C. F. Kolp, Electra	2,742.52	2,573.57
Waggoner Refining Co., Inc., Electra	74,948.71	69,104.30
Wahpoo Oil Co., Rockdale	704.50	477.57
Wainwright West Oils, Ltd., Henderson	7,409.00	7,260.82
Wainwright West Oils, Ltd., Henderson	10,644.00	10,175.35
Wallace, R. J., Colorado	4,366.61	2,838.30
Wallace, W. W., Cisco	746.93	697.17
Wallace, Dr. C. W., and Huida B. Wallace, Wichita Falls	30,754.47	30,394.46
Wallace & Davis, Minerva	383.53	254.87
Wallace & Embrick, Minerva	242.81	161.70
Walters, Edgar T., receiver, L. G. Bradstreet Co., Fort Worth	21,502.46	20,601.64
Walton, N. D., et al, Henderson	4,123.74	4,081.27
Ward, Bryan, trustee, Houston	5,357.94	4,623.53
Ward Oil Corp., Ardmore, Okla.	176,008.19	154,778.58
Warner Oil Co., Borger	13,324.27	11,706.72
Warner-Quinlan Co. of Texas, Houston	93,556.00	60,948.00
Washoma Petroleum Co., Enid, Okla.	7,306.14	6,429.40
Watson, Pansy F., Electra	845.14	845.14
Watson, R. J., Newcastle	3,478.73	2,732.41
Watts, C. D., Moran	476.56	381.24
Weaver-Crim Corp., Eastland	73,291.34	71,822.51
Weaver & Pois, Wichita Falls	786.14	754.68
Webb, J. R., Corsicana	192.95	180.74
Webb, J. R., and J. H. Bryant, Corsicana	174.37	132.50
Webb, Luther, Vernon	3,733.13	3,486.88
Webb Oil Co., Humble	3,560.95	2,848.77
Webster, C. J., Oil & Gas Co., San Antonio	8,389.27	7,591.40
Weekley Oil Corp., Fort Worth	40,716.32	26,465.74
Weiler, J. G., et al, Cross Plains	998.05	997.22
Weinert, H. H., Seguin	26,168.32	19,626.11
Welch, Charles, Margarett Oil Co., Albany	576.00	492.96
Well No. 3 Acct., Pecos	1,510.39	981.75
Wellington Oil Co., Ltd., Los Angeles, Calif.	18,466.71	18,097.34
Wells & Gann Drilling Co., Tyler	29,789.50	29,193.94
Wents, L. H., Oil Division, Ponca City, Okla.	8,263.23	8,097.96
Werby, J. Z., Longview	7,201.00	7,057.45
Westbrook Oil Corp., Operating Acct., Fort Worth	32,918.93	22,384.86
Westbrook, R. A., Production Acct., Fort Worth	3,130.99	2,129.07
Western States Royalties Co., Chicago, Ill.	11,853.39	11,616.31
Westexas Oil & Royalty Corp., Fort Worth	10,417.24	9,580.37
West Florida Co., Atmore, Ala.	3,978.99	3,899.41
Westheimer & Daube, Ardmore, Okla.	27,794.61	27,224.88
West Production Co., Houston	9,735.05	8,437.37
West Texas Petroleum Corp., San Angelo	18,624.55	12,105.96
West, C. K., Arp	5,179.34	5,075.65
West, C. K., Breckenridge	4,560.48	3,544.97
Whale Oil Corp., Corsicana	11,894.92	9,909.81
Wheeler, W. W., (Wirt M. Morris, receiver), Webb Lease, Fort Worth	8,829.09	8,652.55
Wheelock & Collins, Corsicana	49,278.60	48,257.77
Wheless, J. S., Jr., San Antonio	26,472.44	25,942.00
White & Duncan, Wichita Falls	22,687.67	19,480.07
White, James H., Wichita Falls	3,226.66	3,113.80

Name and address—	Barrels	Value
Whitehill Oil Corp., Tulsa, Okla.	5,510.17	5,418.54
Whitfield, B. V., Oklahoma City, Okla.	147.07	147.07
Whittenburg, Cobie, Oil Co., Amarillo	134.88	130.51
Whittington, J. O., Longview	41,046.66	40,225.17
Wichita Production Co., Wichita Falls	6,771.67	6,530.90
Wilbarger Oil Co., Wichita Falls	871.56	766.97
Wilcox, H. F., Oil & Gas Co., Tulsa, Okla.	123,079.39	107,120.62
Wilder, Jack H., Rice	185.58	178.15
Wilder & Howse, Tyler	3,724.00	2,387.20
Williford Co., The, Inc., Shreveport, La.	4,317.27	4,230.92
Wilkins, L. A., Burkburnett	4,716.00	4,291.56
Williams, J. H., San Antonio	225.14	169.30
Williams, Mrs. Cora, Ex. Est. J. H. Williams, Dallas	2,711.86	2,595.42
Wills Oil Co., Rockdale	589.34	400.75
Wilson, Lee, Est., Wichita Falls	2,452.74	2,189.58
Wilson, W. L., Electra	587.33	587.33
Wilson-Broach Co., The, Beaumont	10,095.42	8,076.33
Wilson Drilling Co., Wichita Falls	6,907.21	6,819.34
Wilson Oil Co., Houston	12,863.60	10,290.45
Wilson & Swaim, Woodson	727.00	577.81
Winch & Billings, Laredo	18,263.46	14,610.77
Windsor Oil Co., Houston	16,978.75	13,583.00
Winston Oil Co., McAlester, Okla.	29,634.06	29,041.39
Wise & Jackson, Sapulpa, Okla.	9,510.23	8,803.49
Wise & Porterfield, Tyler	2,813.05	2,701.86
Witcher, Annie L., guardian, Wichita Falls	2,417.40	2,399.09
Witcher, W. C., et al, Wichita Falls	207.38	200.58
Witherspoon Oil Co., San Antonio	6,598.93	6,203.00
Witherspoon, C. L., San Antonio	8,923.24	7,640.03
Wittmer Oil & Gas Properties, Pittsburgh, Pa.	6,083.50	4,925.33
Wolf, D. L., Olney	6,233.21	5,345.43
Wolfe, A. T., Wichita Falls	4,522.51	4,463.11
Wolfe R. A., and J. V. Bradley, Houston	4,156.41	4,072.28
We-Mac Oil Co., Wichita Falls	3,469.16	3,464.00
Wood, Benton, Lesh & McCall, Nocona	2,833.63	2,153.57
Woodburn Oil Corp., Dallas	760.47	749.73
Woodley Petroleum Co., Shreveport, La.	154,199.09	136,176.51
Woodruff Development Co., Inc., Cleveland, Ohio	785.00	632.87
Woods & Bennett, Humble	4,242.15	3,401.46
Woods, J. A., & Salome-Cooper Drilling Co., Wichita, Kans.	20,700.78	20,286.76
Woods, J. A., & Salome-Cooper Drilling Co., Wichita, Kans.	19,565.89	19,174.58
Woodry, W. C., Wichita Falls	9,682.02	9,499.22
World Oil Co., Fort Worth	3,843.68	2,512.75
Worth Oil Co., Wichita Falls	4,637.80	3,702.94
Worth Petroleum Co., Fort Worth	4,112.92	3,866.15
Wright, Elsie E., Wichita Falls	328.64	308.92
Wright-Smith Oil Co., Ardmore, Okla.	8,435.62	8,266.92
Y		
Yates, Frank P., Jr., et al, Dallas	3,945.97	3,867.05
Yeager, Henry, Dallas	12,948.98	12,690.01
York Petroleum Co., Stamford	53.86	47.38
Yount Lee Oil Co., Beaumont	1,525,148.68	1,367,939.27
Yuba Oil Co., Inc., Nacogdoches	789.00	591.00
Z		
Zadie Belle Oil Co., Mineral Wells	96.00	69.43
Zenith Corp., The, Duluth, Minn.	8,096.00	7,934.08
Zeppa, T., trustee, Longview	2,725.80	2,670.50

Railroad Commission Is Restrained by Court

(Continued from Page 68)

by the defendants here that the questioned order has relation to that power. Their claim of authority to make the order is put here upon the ground that in the protection of the correlative rights of owners of gas in the field the commission may prevent those having market outlet from taking their gas until owners of other wells drawing from the same reservoir, are provided with a market for theirs.

Power of State

Some of counsel for plaintiffs question whether the state has power, upon considerations of this kind, to control the right of owners of oil or gas wells to produce from their wells. Some recognize that it has. All insist that whether or not the state could so legislate, it has not only not done so, but has affirmatively withheld from the commission the power to limit production, except upon considerations of waste.

We have held that, though in Texas it is a rule of property that one owns minerals in place just as he owns the land from which it is extracted (c/f Burnet vs. Harmel 77 L. Ed. p. 59) and a rule of law that each may take without accountability to his neighbor for so doing, except in extreme circumstances and under extreme conditions, all of the oil or gas he can draw from his wells, these rules constitute no limitation on the power of the legislature to enact laws conserving oil and gas, the natural resources of this state. We have not had occasion to consider whether the existence of these rules of property would work a limitation upon the legislative power to control production, not in order to prevent waste of the state's resources, but to protect the mutual and correlative rights of owners against undue takings from a common source of supply. We find no occasion to consider it now; it does not arise in this case.

The legislature of Texas has not delegated to the commission any power to restrict production upon considerations having to do with the rights of owners to draw upon a common supply, and the extent to which they may do so. On the contrary, it has expressly withheld from it any power to limit production except upon considerations of physical waste. It has declared that no owner may have his production curtailed unless he is committing or contributing to waste. Besides, no case calling for the exercise of this power, if it existed, is made out here. Though the defendants do recite in the order that the shutting in of the wells in part of the territory, and the limitation of those in other parts of it to 4 per cent of their capacity, is necessary to prevent the owners of wells having no market outlet from having their gas drained away, this finding is not only without evidence to support it, but it is directly in the face of the undisputed facts, that plaintiffs are not even taking the proportion of gas which on allocation, would be their due.

We held in the common purchaser cases, though there was a statute purporting to authorize it, that the commission had no power to compel plaintiffs to purchase gas they did not need or require; no power to prevent them from carrying to the customers they had obligated themselves to serve, the gas which having bought and paid for in place they owned. We enjoined the defendants from undertaking to do so. From that order, no appeal was taken.

Plaintiffs stand here in stronger case than they did there. Here, without a statute authorizing, indeed, in the face of a statute prohibiting, the curtailment of production, except to prevent waste of natural resources, and of an injunction restraining them from doing so, defendants are undertaking to impose upon plaintiffs' use of their gas the illegal condition that they share their facilities, without compensation therefor, with owners of other wells in the field. This is "running the public interest argument into the ground." It is a taking of the property of one, to give it without compensation, not to the public, but to another. It is not due process; it is confiscation.

Plaintiffs have their decree with costs. Pending its submission to and entry by the district judge, the restraining order is continued in force.

California Oil Field Operations for November, 1932

According to figures collected by the American Petroleum Institute, Pacific Coast office, the total production of crude oil in California for November amounted to 14,142,389 bbls., an average of 471,413 bbls. per day. This is a decrease of 447 bbls. per day under October production.

Total stocks of crude and all products in Pacific Coast territory decreased during the month 817,603 bbls. The total stocks at the end of the month were 169,106,027 bbls. The total stock decrease for 1932, up to November 30, was 729,922 bbls.

Nineteen wells were completed during the month with an initial daily production of 28,379 bbls., compared with 12 wells completed during October with an initial production of 4,576 bbls.

CRUDE PETROLEUM PRODUCTION
(Figures of production and stocks are in barrels of 42 gallons)

	Barrels	Daily average		
Group No. 1—	per month	Nov., 1932	Oct., 1932	Nov., 1931
Coalinga	322,709	10,757	10,703	7,491
Elk Hills	369,622	12,321	11,988	12,982
Fruitvale	153,832	5,128	4,621	2,810
Kern River	266,181	8,873	8,565	9,972
Kettleman Hills-North Dome	1,845,910	61,530	59,803	60,003
Lost Hills-Belridge	272,087	9,070	9,427	9,511
McKittrick	52,018	1,734	1,768	1,831
Midway-Sunset	1,440,291	48,010	47,775	49,465
Mount Poso	239,833	7,994	8,832	8,539
Round Mountain	63,560	2,285	2,079	1,710
Wheeler Ridge	14,996	500	495	523
Group No. 2—				
Elwood	391,214	13,040	13,744	22,462
Rincon	62,019	2,067	1,969	1,823
San Miguelito	32,367	1,079	1,054	280
Santa Barbara	19,959	665	412	175
Santa Maria	92,760	3,092	2,902	2,697
Summerland	2,824	94	103	134
Ventura Avenue	1,096,663	36,555	35,253	39,203
Ventura-Newhall	93,729	3,124	3,110	3,387
Watsonville	1,875	63	62	63
Group No. 3—				
Coyote	313,488	10,450	10,048	10,410
Dominguez	523,818	17,461	17,637	11,006
Fullerton (Brea Olinda)	240,544	8,018	7,820	9,599
Huntington Beach	622,602	20,753	20,636	20,945
Inglewood	367,948	12,265	12,211	13,622
Lawndale	8,400	280	262	287
Long Beach	2,108,653	70,289	67,976	75,450
Los Angeles-Salt Lake	28,968	966	1,005	1,157
Montebello	145,240	4,841	4,719	6,324
Playa Del Rey	412,149	13,739	14,046	21,587
Potrero	17,708	590	602	851
Richfield	177,570	5,919	5,937	6,519
Rosecrans	92,613	3,087	3,072	3,393
Santa Fe Springs	1,703,601	56,787	63,688	62,422
Seal Beach	325,171	10,839	11,971	12,948
Torrance	182,317	6,077	6,168	5,938
Whittier	32,141	1,071	1,006	1,300
Total	14,142,389	471,413	471,860	499,923
October	14,627,663	471,860		
Decrease	485,274	447		

TOTAL STOCKS HELD BY CALIFORNIA OIL COMPANIES, BOTH INSIDE AND OUTSIDE THE UNITED STATES

	Nov. 30, 1932	Oct. 31, 1932	Nov. stock decreases	Nov. 30, 1931
Heavy crude and all grades of fuel, gas, and Diesel oils	101,822,743	102,322,684	499,941	99,628,979
Refinable crude	40,147,042	39,897,757	†249,285	41,666,917
Finished gasoline, engine distillate and natural gasoline	15,153,659	15,705,994	552,335	15,416,404
Crude gasoline and naphtha distillates	4,935,880	5,076,011	140,131	3,474,072
All other stocks	*7,046,703	†6,921,184	†125,519	§9,117,122
Total all stocks	169,106,027	169,923,630	817,603	169,303,494

†Increase. Barrels of coke included ..... *651,090 §645,659 §632,974

OIL FIELD DEVELOPMENT

	New rigs up	Active drilling	Producers completed	Daily initial output	Active producing	Abd. wells Drillers	Abd. wells Producers
Group No. 1—							
Coalinga	0	0	0	0	653	0	0
Elk Hills	0	0	0	0	197	0	0
Fruitvale	0	4	2	434	50	0	1
Kern River	0	0	0	0	922	0	0
Kettleman North Dome	2	10	2	23,560	35	1	0
Lost Hills-Belridge	0	1	0	0	156	0	0
McKittrick	0	1	0	0	110	0	0
Midway-Sunset	0	1	0	0	1,749	0	0
Mount Poso	0	0	0	0	89	0	0
Round Mountain	0	1	2	312	19	0	0
Wheeler Ridge	0	0	0	0	34	0	0
Group No. 2—							
Elwood	1	1	0	0	35	0	0
Rincon	0	2	0	0	33	0	0
San Miguelito	0	1	0	0	2	0	0
Santa Barbara	1	2	1	175	8	0	0
Santa Maria	1	1	1	197	171	0	0
Summerland	0	0	0	0	64	0	0
Ventura Avenue	2	6	1	490	156	0	0
Ventura-Newhall	1	12	1	51	425	2	0
Watsonville	0	0	0	0	6	0	0
Group No. 3—							
Coyote	0	2	1	1,725	85	0	0
Dominguez	1	4	0	0	43	0	0
Fullerton	0	0	1	50	351	0	0
Huntington Beach	0	1	0	0	382	0	4
Inglewood	0	1	0	0	224	0	0
Lawndale	0	0	0	0	6	0	0
Long Beach	6	8	3	1,165	950	0	4
Los Angeles-Salt Lake	0	0	0	0	283	0	5
Montebello	0	0	0	0	165	0	1
Newport	0	0	0	0	0	0	0
Playa Del Rey	0	1	1	115	199	1	1
Potrero	0	1	0	0	12	0	1
Richfield	0	0	1	105	160	0	0
Rosecrans	0	1	0	0	67	0	0
Santa Fe Springs	0	0	0	0	531	0	3
Seal Beach	0	0	0	0	168	0	2
Torrance	0	0	0	0	373	0	1
Whittier	0	0	0	0	141	0	0
Miscellaneous drilling	6	34	0	0	0	1	0
Group No. 4—							
Buttonwillow gas field	2	1	2	gas	2	0	0
Dudley Ridge gas field	0	0	0	0	0	0	0
Goleta gas field	0	0	0	0	0	0	0
November	23	97	19	28,379	8,946	5	23
October	12	93	12	4,576	8,903	17	6
Increase	11	4	7	23,803	43	*12	17
Average for year 1931	22	207	21	30,370	8,911	20	15
Average for year 1930	30	434	63	48,710	9,632	21	27
Average for year 1929	109	610	76	100,625	10,550	26	18

*Decrease.